

Park Unit Shelves

654707

BELA

draft

general management plan/environmental assessment

land protection plan

wilderness suitability review

march 1985

BERING LAND BRIDGE



NATIONAL PRESERVE / ALASKA

NATIONAL PARK SERVICE
WATER RESOURCES DIVISION
FORT COLLINS, COLORADO
RESOURCE MANAGEMENT



Comments will be accepted until
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U.S. Department of the Interior / National Park Service



BERING LAND BRIDGE

NATIONAL PRESERVE / ALASKA

draft general management plan / environmental assessment
land protection plan
wilderness suitability review

NATIONAL PARK SERVICE
WATER RESOURCES DIVISION
FORT COLLINS, COLORADO
RESOURCE ROOM PROPERTY

ANILCA REQUIREMENTS

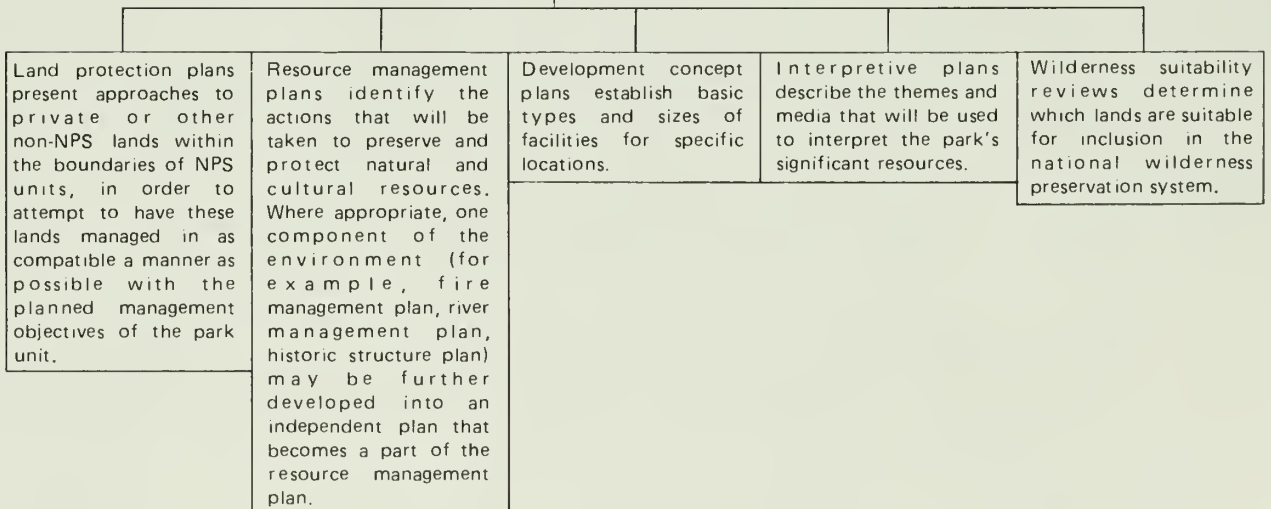
Section 1301 of the Alaska National Interest Lands Conservation Act (ANILCA: PL 96-487) requires the preparation of conservation and management plans for each unit of the national park system established or enlarged by ANILCA. These plans are to describe programs and methods for managing resources, proposed development for visitor services and facilities, proposed access and circulation routes and transportation facilities, programs and methods for protecting the culture of local residents, plans for acquiring land or modifying boundaries, methods for ensuring that uses of private lands are compatible with the purposes of the unit, and opportunities for mutually beneficial cooperation with other regional landowners.



NPS PLANNING DOCUMENTS

The National Park Service planning process for each park (preserve, monument, or other unit of the system) involves a number of stages, progressing from the formulation of broad objectives, through decisions about what general management direction should be followed to achieve the objectives, to formulation of detailed actions for implementing specific components of the general management plan.

The general management plan addresses topics of resource management, visitor use, park operations, and development in general terms. The goal of this plan is to establish a consensus among the National Park Service and interested agencies, groups, and individuals about the types and levels of visitor use, development, and resource protection that will occur. These decisions are based on the purpose of the park, its significant values, the activities occurring there now, and the resolution of any major issues surrounding possible land use conflicts within and adjacent to the park. The following kinds of detailed action plans are prepared concurrently with or after completion of the general management plan.



Depending largely on the complexity of individual planning efforts, action plans may or may not be prepared simultaneously with the general management plan. If they are prepared after the general plan, the NPS public involvement and cooperative planning efforts are continued until all of the implementation plans are completed.

SUMMARY

This combined document consists of the "Proposed General Management Plan and Environmental Assessment," the "Land Protection Plan," and the "Wilderness Suitability Review" for Bering Land Bridge National Preserve. The purpose of the "General Management Plan" is to preserve, protect, and interpret the natural and cultural resources of the national preserve and to provide for continued subsistence uses and reindeer grazing, in accordance with the legislative mandates of ANILCA. The "Land Protection Plan" is concerned with the potential uses of nonfederally owned lands within the preserve, and the "Wilderness Suitability Review" evaluates the suitability of designating lands within the preserve as wilderness.

Three alternative management strategies for the national preserve have been considered--the proposal and two alternatives. The proposal is the preferred alternative, and it is the minimum action alternative to meet the legislative mandates, to protect natural and cultural resources, to continue subsistence uses and reindeer grazing, and to provide information, interpretation, and recreational opportunities. Research, survey, and inventory programs are recommended as the base for future natural and cultural resource management actions. Access and circulation will continue according to the existing authorities of ANILCA and federal regulations. Headquarters will remain in Nome, and new district ranger stations will be established in Shishmaref and Deering. Serpentine Hot Springs will be maintained in its present condition.

Alternative A would continue existing policies, with the National Park Service responding to future needs and problems without major actions or changes in course. Alternative B would increase development and use of the preserve by improving access, providing additional visitor facilities, and increasing staffing.

The environmental consequences of the proposal and the alternatives would be relatively minor. However, research proposals would greatly expand the knowledge about plant, animal, and human migrations across the land bridge, and they would provide the information needed to establish effective management programs for natural and cultural resources. There would be long-term positive but minor effects on the Nome economy under the proposal and alternative B.

The "Land Protection Plan" recommends that if native allotments are identified that have significant natural or cultural resources or that are essential for public use they will be acquired in fee on a willing-seller basis. If Serpentine Hot Springs is conveyed to the claimant, it will be acquired in fee through exchange. Administrative office sites will be acquired in Nome, Shishmaref, and Deering.

The "Wilderness Suitability Review" finds that all federal lands within the entire preserve are eligible to be designated as wilderness.



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The Bering Strait area is still commonly visualized as a narrow path or trail over which people hustled, in one direction, on their way to take up positions in which they would presently be discovered. . . . In fact, the Bering Land Bridge was an enormous continental area extending nearly 1,500 km from its southern extremity, now the eastern Aleutians, to its northern margin in the Arctic Ocean. It was an area that could accommodate many permanent residents, human and animal, and it endured for a longer time than that documented for the entire period of human occupancy in America.

William Laughlin



BERING LAND BRIDGE NATIONAL PRESERVE

REGION

BERING LAND BRIDGE NATIONAL PRESERVE

United States Department of the Interior/National Park Service
DSC / MARCH 1985 / 182-20,005 A

PURPOSE OF THE PRESERVE

Bering Land Bridge National Preserve was established by the Alaska National Interest Lands Conservation Act (ANILCA) on December 2, 1980. As stated in ANILCA, the purpose of Bering Land Bridge, as well as of the other conservation system units in Alaska, is

to preserve for the benefit, use, education, and inspiration of present and future generations certain lands and waters in the State of Alaska that contain nationally significant natural, scenic, historic, archeological, geological, scientific, wilderness, cultural, recreational, and wildlife values.

The primary purpose of Bering Land Bridge National Preserve is to protect and preserve for research and interpretation a portion of the 1,000-mile-wide land link that intermittently connected Asia and North America 14,000 to 25,000 years ago. The land bridge itself is now overlain by the Chukchi and Bering seas. Approximately 2.8 million acres are included in the national preserve, and these lands contain paleontological deposits that can be studied and analyzed to determine the climate and conditions that existed when plants and animals migrated between the North American and Asian continents. The preserve also has high potential for containing archeological evidence of early man's habitation in northwest Alaska.

Other management purposes of the national preserve, as summarized from ANILCA (sec. 201(2)), are

to protect and interpret arctic plant communities, volcanic lava flows and ash explosions, coastal formations, and other geological processes

to protect habitat for and populations of migratory birds and fish and wildlife (marine mammals, brown and grizzly bears, moose, and wolves)

to provide for archeological and paleontological study of plant, man, and animal migrations across the land bridge

to continue reindeer grazing, including necessary equipment and facilities

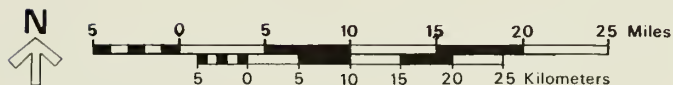
to protect the viability of subsistence resources

to provide for outdoor recreation and environmental education, including public access for recreation at Serpentine Hot Springs

to continue customary patterns and methods of winter travel, during periods of adequate snow cover, along an existing route from Deering to the Taylor Highway

● Wales

- 1 SERPENTINE HOT SPRINGS
- 2 CAPE ESPENBERG
- 3 COASTLINE AND INTERIOR LAGOON
- 4 RIVER MOUTH AND ESTUARY
- 5 MAAR LAKES AND VOLCANIC ASH
- 6 LOST JIM LAVA FLOW
- 7 SULLIVAN BLUFFS SEABIRD COLONY
- 8 IMURUK LAKE PALEONTOLOGICAL SEDIMENTS
- 9 TRAIL CREEK CAVES ARCHEOLOGICAL SITE



BERIN

SPECIAL SCENIC AND SCIENTIFIC RESOURCES

BERING LAND BRIDGE NATIONAL PRESERVE

United States Department of the Interior/National Park Service

DSC / MARCH 1985 / 182-20,012A



- Serpentine Hot Springs
- Cape Espenberg
- Coastline and Interior Lagoon
- River Mouth and Estuary
- Maar Lakes and Volcanic Ash
- Lost Jim Lava Fldw
- Sullivan Bluffs Seabird Colony
- Imuruk Lake Paleontological Sediments
- Trail Creek Caves Archeological Site



SPECIAL SCENIC AND SCIENTIFIC RESOURCES

BERING LAND BRIDGE NATIONAL PRESERVE
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SIGNIFICANCE OF THE PRESERVE

The primary significance of Bering Land Bridge National Preserve is the opportunity to study the cultural, geographic, and climatic history, as well as the biological evolution, of northern North America. Numerous paleontological resources (pollen, fossils, animal remains, and plant parts) have been identified in the preserve. Through the study of paleontological and archeological resources, sites at Bering Land Bridge may provide critical documentation of plant, animal, and human migrations across the land bridge.

Significant natural resources in the preserve include areas of past volcanic activity in the high Arctic, dynamic coastal barrier beaches with interior lagoons, and a full representation of tundra varieties from sea level to 3,500 feet. There are two distinctly different volcanic areas--the lava flow of the Lava Lake and Imuruk Lake areas and the volcanic ash explosion areas of the Devil Mountain Lakes and the Killeak Lakes. The broad river mouths, estuaries, and lagoons provide primary waterfowl nesting habitat as well as staging areas for fall migration, and some 112 migratory bird species (many of which are Asian forms rarely seen in North America) have been recorded.

Significant known cultural resources include the Trail Creek caves archeological site, which has provided the earliest evidence (more than 10,000 years old) of humans in Alaska. Other resources are from former Eskimo village sites. More recent historical sites include remnants of early exploration and mining activities. Another cultural value is the continuation of present-day Eskimo lifestyles, which are similar to the lifestyles that have existed for generations.

Serpentine Hot Springs is a significant geothermal resource set in a strikingly scenic valley where granite spires and pinnacles rise to 100 feet. It is also important habitat for raptorial birds, such as gyrfalcons and rough-legged hawks. The cultural significance of the area has long been recognized in its use for native healing and as a training ground for shamans (spiritual leaders).

PURPOSE OF AND NEED FOR THE GENERAL MANAGEMENT PLAN

The general management plan for Bering Land Bridge National Preserve provides overall guidance and direction for the management of this national park system unit for the next five to 10 years. During that time if specific plan elements must be revised, alternatives will be analyzed, public involvement will be conducted, and all compliance actions will be completed. The plan allows for coordinated development and implementation of National Park Service (NPS) programs for research, visitor use, facilities, operations, and natural and cultural resource management. It shows how the management objectives for the preserve should be achieved, and it addresses issues that affect the management and operation of the preserve. The approved plan will fulfill ANILCA requirements for the National Park Service to prepare management plans (title 13).

This document presents a proposed plan and two alternatives for the management of Bering Land Bridge National Preserve. The proposed plan is a minimum requirements alternative, alternative A would continue existing policies, and alternative B would encourage expanded access and visitor use. The environment of the preserve is described to establish the context for management actions, especially with regard to natural and cultural resources. The environmental assessment portion of the document describes the consequences of implementing the proposal or the alternatives, with particular attention to impacts on natural and cultural resources and the socioeconomic environment. A "Land Protection Plan" for nonfederal properties within the boundary of the preserve plus a "Wilderness Suitability Review" are also included in this document. This document will be subject to public review before either the proposal or one of the alternatives is approved as the general management plan for Bering Land Bridge National Preserve.

MANAGEMENT OBJECTIVES

The following management objectives for Bering Land Bridge National Preserve have been developed to elaborate the general direction provided by ANILCA and the legislative history of the preserve. They are based on the preserve's "Statement for Management," a document that provides an overview of the purpose, objectives, and conditions affecting the preserve.

General

Manage Bering Land Bridge National Preserve in the same manner as a national park except that subsistence uses, reindeer herding, and sport hunting, fishing, and trapping will be allowed, as required by the legislation.

Minimize development or alteration of the natural environment except as necessary to meet legislatively authorized purposes.

Cooperate with affected organizations and landowners regarding management of the preserve to ensure that actions are mutually beneficial to the degree possible.

Develop cooperative working agreements where possible with organizations and agencies to help implement management programs for the preserve.

Use local expertise where possible.

Natural Resources

Protect and interpret natural ecosystems and their individual components, based on an understanding of the role played by natural processes, including fire.

Survey, identify, and evaluate the significance of natural resources.

Manage native plant and wildlife species in a manner consistent with the conservation of healthy populations.

Continue reindeer herding in the preserve, and define sound range management principles that take into account all species and habitats while recognizing the broader purposes of the preserve.

Cultural Resources

Survey, identify, and evaluate the significance of cultural resources.

Protect cultural resources such as archeological sites, artifacts, and historic structures on-site and in accredited museums and collections, when necessary.

Interpret cultural resources through cooperative programs of oral history, traveling exhibits, and similar outreach programs.

So that local collections are representative of the range of artifacts that have been found in the region, continue efforts to inventory artifacts removed from the preserve before its establishment, and retrieve them if they are not being used by present repositories.

Provide opportunities for ongoing traditional cultural activities.

Access

Provide reasonable access to inholdings (allotments, mining claims, and other nonfederal lands).

Subsistence

Provide opportunities for traditional means of access and activities necessary for subsistence uses.

Serpentine Hot Springs

Maintain the existing character of Serpentine Hot Springs.

PLANNING ISSUES AND MANAGEMENT CONCERNS

Specific issues and management concerns related to the preserve that are addressed in this document include the following:

The Land Bridge: The full significance of the land bridge in the spread of plants, animals, and early human groups from Asia to North America is still not known. A major purpose of the preserve

is to provide opportunities to better understand this role. The scope of such research must be determined, and how the research should be undertaken or encouraged.

Natural and Cultural Resource Management: The National Park Service is responsible for protecting natural and cultural resources within the preserve. Current or future uses in or near the preserve could affect these resources and result in conflicts with the NPS protection mandate. It is important to anticipate these impacts and conflicts so that acceptable strategies to minimize them can be developed and implemented.

General Use: Current uses of the national preserve are subsistence-related activities; reindeer grazing; hunting, fishing, and trapping; and recreational and traditional activities at Serpentine Hot Springs. At present few visitors pursue nonconsumptive recreational activities such as camping, hiking, boating, bird-watching, and photography. The general use issues are how to accommodate and provide for a variety of uses and users while protecting the natural and cultural environment and minimizing conflicts among different user groups. General use issues can be subdivided into the following categories:

Access and circulation: Access to the preserve is difficult and costly except for those who live in nearby villages. The issue is whether to improve access or to maintain present access patterns and methods.

Subsistence activities: A large portion of the preserve is used by area residents for subsistence purposes. These uses are protected by ANILCA and NPS regulations. Other uses in the preserve may conflict with subsistence activities in the future. The issue is how to minimize any future conflicts resulting from other uses, such as recreation and sport hunting.

Reindeer grazing: Some 20,000 reindeer are now permitted to graze in the national preserve. Concerns about the grazing or handling of reindeer include the effects of reindeer grazing on the natural environment, the definition of sound range management, and the potential effects of various management practices within the preserve.

Serpentine Hot Springs: Serpentine Hot Springs is one of the major use areas on the Seward Peninsula. It is important to residents of nearby villages, Nome, and elsewhere as a place for recreation, healing, and spiritual revitalization. It is also used as a hunting base camp. Some interests would like the area to remain just as it is, and others would like to provide better access and additional facilities. Resolving the different views of local users, as well as considering any potential needs of future visitors from outside the area, is a major public use issue.

Information and interpretation: Providing information about the preserve's features and recreational opportunities and explaining or interpreting the significance of its resources are major functions of the National Park Service. Issues to be addressed are the emphasis of various interpretive themes, location of information and interpretive programs, and opportunities for cooperation and coordination.

Administrative Operations: Staffing needs and functions, as well as the location and type of facilities needed to implement the plan, must be determined. There are concerns about whether the staff should be located in the preserve and in local villages, or only in Nome.

Land Protection: Landownership on the Seward Peninsula is a mosaic of state, federal, native regional, native village, and private lands. To date the ownership of many lands has not been resolved, and large areas have been selected by both the state and native corporations. Landownership of the national preserve is primarily federal (2,783,810 acres), with 1,280 acres of nonfederal land and approximately 187,641 acres of native allotment applications. Lands that need to be federally owned to ensure resource protection and to provide for visitor use must be identified, along with the best means of protection, whether it is by full fee acquisition, less-than-fee acquisition, cooperative agreements, or other means.

PLANNING HISTORY

The initial interest in setting aside a portion of the Seward Peninsula to recognize the importance of the land bridge that once connected Asia and North America occurred with the preparation and passage of the Alaska Native Claims Settlement Act (ANCSA) in December 1971. Sections 17(d)(1) and (2) of that act withdrew unreserved public lands and where suitable allowed for their inclusion in a national park, forest, wildlife refuge, or wild and scenic river system. The reservation of these lands led to the preparation of a Master Plan for the Chukchi-Imuruk National Wildlands and an accompanying Environmental Impact Statement for the Chukchi-Imuruk National Reserve in December 1973. These documents analyzed various boundary alternatives, management schemes, and development concepts, and they described anticipated impacts of proposed actions.

During the 1970s Congress considered many proposals for the establishment of specific national parks, forests, wildlife refuges, and wild and scenic rivers in Alaska. In 1978 while these discussions were taking place, and the ANCSA 17(d)(1) and (2) withdrawals were due to expire, President Carter set aside from potential harm all proposed park lands in Alaska by designating them as national monuments. Among these park units was Bering Land Bridge National Monument. With passage of ANILCA in 1980, the status of this national park system unit was changed to a national preserve and its boundaries were modified. Planning for this general management plan began in January 1984. Planning efforts since that time are summarized in the "Consultation and Coordination" section.



THE BERING LAND BRIDGE ENVIRONMENT

REGIONAL SETTING

OVERVIEW

Bering Land Bridge National Preserve occupies about one-third of the Seward Peninsula, which is about 500 miles northwest of Anchorage. The peninsula is approximately 200 miles from east to west, and the greatest north to south distance is 150 miles. The peninsula is the divide between the Pacific and Arctic oceans, with Norton Sound and Bering Sea to the south and Kotzebue Sound and Chukchi Sea to the north. The northernmost point of the peninsula, Cape Espenberg, extends just north of the Arctic Circle, and the westernmost point, Cape Prince of Wales, is only 55 miles from Siberia.

The Seward Peninsula consists of a mixture of coastal plain, plateau, and mountain range. The coastal plain may be as wide as 25 miles, with a variety of features along the sea: rocky headlands predominate in the south and west, while broad beaches, lagoons, offshore bars, inland wetlands, bays, and lakes are common along the north shore. Plateaus occupy a large portion of the interior of the peninsula, with elevations ranging from 600 to 3,000 feet. These areas have broadly rounded hills and irregular topography, but they lack a well-defined system of ridges. The principal mountain ranges are the Kigluaiks, known locally as the Sawtooths (elevation 5,000 feet) northwest of Nome, the York Mountains (elevation 2,400 feet) in the west, and the Bendeleben Mountains (elevation 3,700 feet) in the center of the peninsula. The latter range forms the southern boundary of the preserve.

The principal land uses on the Seward Peninsula are subsistence activities (hunting, fishing, and gathering), mining, and reindeer herding. Subsistence activities by area residents occur throughout the peninsula and at all times of the year. Mining has historically been a major activity, particularly near Nome and along Kougark Road north of Nome, and this activity will continue to be important. Domestic reindeer herding has occurred on the Seward Peninsula since 1892, and the entire peninsula, including the preserve, is now under reindeer grazing permits.

Landownership on the Seward Peninsula is a mosaic of state, federal, native regional, native village, and private lands. To date the ownership of many lands has not been resolved, and large areas have been selected by both the state and native corporations. Landownership of Bering Land Bridge National Preserve is primarily federal (2,783,810 acres), with 1,280 acres of nonfederal land and approximately 187,641 acres of native corporation and allotment applications.

POPULATION

Bering Land Bridge National Preserve lies primarily within the Nome census division, which encompasses most of the Seward Peninsula plus the east side of Norton Sound. This area had a 1980 population of 6,537. The regional population grew at an average annual rate of 1.3 percent

during the 1970s (Alaska Department of Commerce and Economic Development 1983).

Nome has a population profile distinct from that of other local communities. It is the largest community, housing over 35 percent of the region's residents. The city and adjacent residential areas had a 1983 population of 3,620 (Alaska Department of Community and Regional Affairs 1984). The city's nonnative population is much larger than that of the outlying villages--in 1980, 58 percent of its residents were Alaskan natives and 39 percent were white. The average age is 25 (Environmental Services 1981). The overall population trend for Nome has been slow, incremental growth since 1920. However, the population declined slightly from 1970 to 1980 (see table 1). One forecast projects an average annual growth rate of 2 percent through 1990 and then a drop to 0.5 percent from 1990 to 2000 (Environmental Services 1981); another source predicts a continued 2 percent per year increase through 2000 (Berger and Associates 1981). Nome's population fluctuates seasonally. The summer population swells as people come to fill temporary wage jobs. Movement also occurs for subsistence purposes. People leave the city to go to fishing and hunting camps.

Kotzebue, a regional population center for northwest Alaska, is about 40 miles northeast of the preserve. The 1983 population was 2,981, and 77 percent of the population were Alaskan natives. The projected annual growth rate for 1980 to 2000 is 3 percent (Dames and Moore 1983).

Villages near Bering Land Bridge National Preserve include Wales, Shishmaref, Brevig Mission, Teller, and Deering. Over 90 percent of the residents are Inupiaq. Projected growth rates are lower than those for Nome or Kotzebue (see table 1).

Table 1: Population Characteristics

<u>Community</u>	<u>1970 Population</u>	<u>1980 Population</u>	<u>Percentage Change</u>	<u>Projected Annual Growth Rate Percentage (1980-2000)</u>
Wales	131	133	+ 1.5	0.74
Shishmaref	267	394	+47.6	0.30
Brevig Mission	123	138	+12.2	0.93
Teller	220	212	- 0.9	1.05
Nome	2,357	2,301	- 2.4	2.23*
Nome Census Division	5,748	6,537	+13.7	--
Deering**	85	150	+76.5	--
Kotzebue**	1,696	2,054	+21.1	3.00***

Source: 1970-80 population data, Bureau of the Census 1981.

* Berger and Associates 1981.

** Outside Nome census division.

***Dames and Moore 1983.

ECONOMY

The Seward Peninsula regional economy is a mixed subsistence and cash system. Many villages rely almost totally on subsistence activities to meet their dietary needs. The region is cash poor as compared to the state, with much of the cash income and employment provided by the state and federal governments. The greatest employment opportunities are in Nome and Kotzebue. In Nome, 43 percent of the payroll is from the government sector. Major commercial activities in the region are services, retail trade, and air transport (see table 2). In Kotzebue, state and local governments contribute most to the economic base, followed by construction, trade, and private services (Darbyshire and Associates 1982).

Table 2: 1980 Employment, Nome Census Division

Government	
Federal civilian	161
State and local	689
Military	129
Private	
Services	605
Retail trade	275
Transportation, communication, utilities	143
Finance, insurance, real estate	120
Nondisclosed	<u>165</u>
Total	2,287

Source: Alaska Division of Budget and Management 1983.

Employment on the Seward Peninsula is seasonal, and the work force is mobile. Year-round jobs are extremely limited except in larger communities. For these reasons, and because people want to participate in subsistence activities part of the year, most residents work only seasonally for wages. Residents of outlying areas may migrate to Nome or Kotzebue for temporary work. Other seasonal employment can be found in mining, fire fighting, construction, and commercial fishing. The unemployment rate may vary by nearly 5 percent from a peak in late spring or early summer to a low in September or October (see table 3). Seasonal fluctuations in Nome have been increasing since 1975 (Environmental Services 1981).

The 1983 annual average unemployment rate for the Nome census division was 8.9 percent. For the Kobuk division, which includes the northeast portion of the Seward Peninsula and Kotzebue, it was 10.0 percent (Bureau of Labor Statistics 1984). The Alaska statewide unemployment rate that year was 9.4 percent (Alaska Department of Labor 1984). In a survey of the outlying villages that was conducted from April to June

Table 3: Unemployment Rates, Nome Census Division
1981-1983

	<u>1981</u>	<u>1982</u>	<u>1983</u>
January	10.9	9.6	10.0
February	10.1	8.8	9.2
March	10.7	10.0	10.2
April	9.7	8.9	10.2
May	9.2	8.8	8.7
June	11.4	9.6	8.6
July	9.4	9.0	8.8
August	8.0	8.3	9.0
September	6.8	5.9	6.9
October	6.7	6.2	6.4
November	7.5	7.7	8.5
December	7.9	9.3	11.2
Average	9.1	8.5	8.9

Source: Bureau of Labor Statistics 1982-84.

1983, three out of five residents reported they were employed full-time, part-time, or seasonally (Bering Straits Coastal Resource Service Area [CRSA] Board 1983).

Although incomes are increasing on the Seward Peninsula, they are still well below the state average. Incomes are also substantially lower in the outlying villages than in Nome or Kotzebue. Between 1975 and 1980 the per capita income for the Nome census division increased 48.2 percent to \$8,214. Per capita income that year for the Kobuk division was \$7,225 and for the state \$12,759 (Alaska Division of Budget and Management 1983). In 1978 village incomes were less than half the average wage of Nome, which was \$15,978 (Alaska Department of Revenue 1981).

Substantial incomes in some villages are earned through commercial fishing, reindeer herding, and arts and crafts. Commercial fishing occurs from May through August, primarily near Kotzebue and in eastern Norton Sound. Wales, Shishmaref, and Deering have reindeer herds numbering over 1,400 animals per herd. Most of the reindeer meat (80-90 percent) is consumed locally, while the antlers are sold to a highly variable and unpredictable Asian market. Arts and crafts, including ivory carving, also provide income to families.

Tourism is a relatively large and growing industry in Nome, and in 1980 approximately 10,000 tourists visited the city. This has generated 450 jobs and wages totaling \$8.2 million in visitor-related industries (Alaska Department of Commerce and Economic Development 1983). Some visitors come for sport fishing and hunting, but most come with tour groups, stay only a short while, and do not go outside the city of Nome.

It is projected that Nome's economy will grow 2 percent per year from 1980 to 1990 and then drop to 0.5 percent (Environmental Services 1981). Trends indicate increases in mining, finance, insurance, real estate, services, and local government. Decreases are projected in construction, federal government, transportation, utilities, and communications.

SUBSISTENCE USE

Many residents of villages on the Seward Peninsula rely almost totally on subsistence hunting, fishing, and gathering to meet food needs. In these villages cash is limited and there are few alternative food sources. Subsistence also provides for individual clothing as well as furs and skins for trading or sale, and it contributes to cultural fulfillment.

In a recent survey, questions about subsistence were asked of 288 (about 25 percent) of the region's households, excluding Nome (Bering Straits CRSA Board 1983). Ninety-one percent of the respondents agreed that subsistence should be the number one priority if there are conflicts with land development. When asked which resources were harvested by the respondents or members of their households for personal or home use, the responses were as follows:

land mammals	83%
marine mammals	92%
waterfowl	95%
fish	98%
berries	96%

While subsistence harvesting takes place year-round, it is most intense spring through fall. At this time residents must frequently decide whether to earn a wage or to live off the land, because both seasonal jobs and fish and game are available. Regional native residents outside Nome spend at least 30 percent of their income on subsistence activities and equipment (Bering Straits CRSA Board 1984, vol. 1).

NATURAL RESOURCES

CLIMATE

The climate of the Seward Peninsula and Bering Land Bridge National Preserve shows both maritime and continental influences. When surrounding marine waters are ice-free (mid June to early November) temperatures are moderate, humidity is high, and skies are typically cloudy, especially near the coast. Interior sections, even during this summer period, are somewhat drier and less cloudy, and therefore have greater heat buildup during daytime hours and a greater daily temperature change.

When offshore waters are frozen, both inland and coastal climates are more continental (i.e., drier, clearer, less windy). However, winter temperatures do not reach the extreme lows that are encountered in interior Alaska at this same latitude. Specific climatological records for the preserve are scarce. Information from a few coastal stations (Nome, Wales/Tin City, Shishmaref, and Kotzebue) has usually been used to characterize the preserve area. However, records from expeditions suggest somewhat colder winters (minimum January temperatures on the coast -10° to -20°F , inland -60°F) and warmer summers (maximum July temperatures on the coast lower 50s, inland mid 60s; see Melchior 1979).

Winds are moderate to strong year-round but are strongest during winter. Winter winds are predominantly from the east, whereas summer winds and storms approach from the south and southwest. Typical monthly average wind speeds are 8-12 miles per hour (mph) year-round, but during stormy periods winds of 50-70 mph are possible.

Statistics on temperatures and wind velocities can be misleading, because it is frequently the combination of low temperatures and wind (the chill temperature) which has greatest biological significance. This creates conditions of great stress and limits the distribution of plants and animals as well as the activities of human inhabitants and visitors.

January/February chill temperatures in villages such as Wales and Shishmaref quite often reach -68° to -80°F and even -100°F for extended periods. Severe weather conditions can occur in summer, with below-freezing temperatures, snow, and long periods of cloudy, windy, and rainy weather. These weather patterns can cause delays in ground and air transportation, making it sometimes difficult, time-consuming, and costly to plan an expedition.

Summer is the wettest period, with perhaps 3 to 4 inches of the 10 inches of annual precipitation being recorded. Snow, with a relatively low water content, averages about 50-60 inches per year. Although this is a relatively small total, windy conditions can cause extensive drifting in some areas while keeping others nearly bare. Local variation of this type can have a strong influence on animal distribution (e.g., reindeer or musk-oxen seeking snow-free lichen patches) as well as human winter travel routes.

Sea ice usually breaks up in early to mid June along the Chukchi Sea coast, although breakup can vary by several weeks. Even after breakup, ice lingers near the coast for a month or more and may be blown back to shore. Inland lakes and ponds thaw at varying times according to their depth, location, and exposure to winds. Some lakes important as floatplane access points may not thaw until early July and may only be open until October.

GEOLOGY AND SOILS

Volcanism

The surface geology of the preserve is dominated by recent volcanic lava and ash flows, and by unconsolidated wind- or water-borne sediments (see Geology and Paleontology map).

The five distinct lava flows around Imuruk Lake range in age from 65 million years (the Tertiary Kugruk volcanics) to as recently as 1,000 years (the Lost Jim flow). The older flows occurred on many separate occasions from a variety of vents and are now largely buried by the more recent flows as well as by wind-blown deposits of silt. The exposed volcanic rocks, all dark basaltic material, were originally rather smooth "pahoehoe" flows, but older flows have been severely shattered by frost action into large angular fragments. More recent flows are progressively less affected by frost fracturing and are little weathered, although virtually all exposed rock is covered by a nearly continuous mat of lichens.

This succession of relatively recent volcanic flows is rare in high arctic latitudes and provides an opportunity to study weathering and erosion as well as plant succession in this extremely harsh environment. The significance of these volcanic flows is cited in the legislation establishing the preserve (ANILCA, sec. 201(b)), and the flows were previously noted as being nationally significant in a national natural landmarks study (NPS 1967).

A distinctly different series of volcanic events that consisted of small but violent explosions of steam and ash and small quantities of lava occurred on the preserve's northern lowlands around Devil Mountain. These explosions created several large craters known as maars that are now filled with water. These features are rare at this latitude and differ from craters within volcanoes or calderas by having relatively low surrounding rims. The single or short-term explosions that created them simply blew out the original surface material, and there was no subsequent ash or lava to build up a cone or rim. The maars now known as the Devil Mountain Lakes and the Killeak Lakes are paired; the largest maar is White Fish Lake.

Other than the exposed volcanic features and some bare ridges of exposed bedrock, most of the preserve is covered by an unconsolidated layer of sediment, including gravels, sand, and silt. Nearest the coast are layers of terrestrial sand and gravel and some marine sediments that represent a

mix of river-borne materials and wind- and wave-transported beach materials left from earlier higher sea levels. Farther inland in the western part of the preserve are alluvial (river-borne) sediments derived from erosion of the higher mountainous regions south of the preserve. To the east, mantling the Imuruk volcanics and other bedrock, are extensive areas of fine wind-borne silts derived from Pleistocene glacial outwash plains now covered by the sea.

Glaciation and the Bering Land Bridge

The most significant geological history theme of the preserve is the land bridge itself, which has intermittently been a dryland connection between the continents of Asia and North America (see Bering Land Bridge map). The land bridge was the result of lowered sea levels during the great ice ages, when vast amounts of water were tied up in continental glaciers. The land bridge chronology is not well understood, and opinions differ as to the actual times and duration of the connections. There was probably a connection in very ancient times, long before recorded glacial periods and before modern flora and fauna evolved. At that time some ancient plants may have been exchanged between the two continents. However, it was only during later connections (in the past 30,000 years) that humans and recent Asian mammals migrated to North America, and some species migrated from North America to Asia. At times the land bridge may have lasted 5,000 years or more, and covered a very broad area over which plant and animal life slowly expanded.

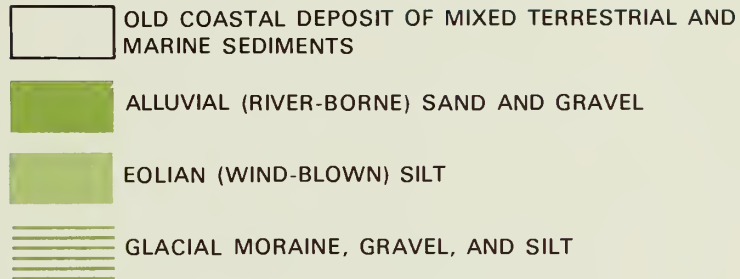
Glaciers at the time of the land bridge did not completely cover the Seward Peninsula (see Bering Land Bridge map). The peninsula's mountains were covered by glaciers on several occasions, resulting in typical glacial sculpturing and glacially derived sediments washed down to the lowlands. However, many lowlands remained free of glaciers, and there is no evidence in the preserve of glacial sculpturing or moraines and isolated rock piles. This implies that substantial ice-free areas during the time that the land bridge existed could have been continuously occupied by modern plants and animals. This raises the likelihood that lowlands now in the preserve were an important element in the land bridge story. Further study of these particular areas might locate specific evidence of earlier human and animal occupancy. Although some permanent ice fields still occur in the Bendeleben Mountains, there are no major glaciers anywhere on the Seward Peninsula.

Other Geologic Features

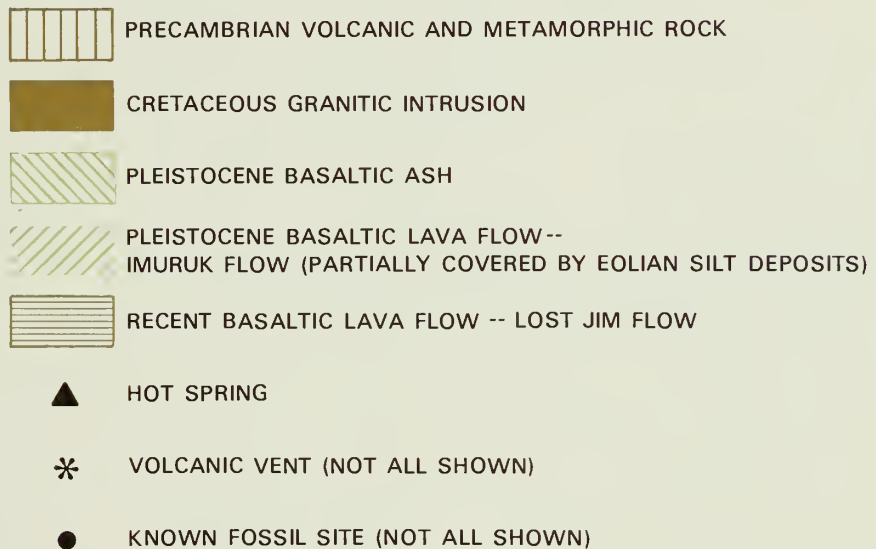
One specific geologic feature of significance is the small area of intrusive rock of Cretaceous age around Serpentine Hot Springs. Dozens of granitic spires and outcrops called tors are exposed, providing one of the relatively few dramatic geologic landscapes in the otherwise rolling and gentle topography of the preserve.

The hot springs area is underlain by diverse, metamorphosed granite. The highest elevations are 2,720-foot Midnight Mountain to the south and an unnamed 2,066-foot peak to the north. The broad valley floor has an

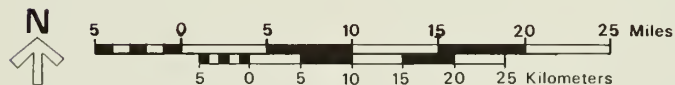
UNCONSOLIDATED DEPOSITS



BEDROCK



SOURCES: U.S. GEOLOGICAL SURVEY 1963 AND SELKREGG 1977



GEOLOGY AND PALEONTOLOGY

BERING LAND BRIDGE NATIONAL PRESERVE

United States Department of the Interior/National Park Service

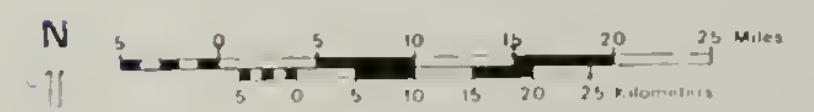
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BERING



- UNCDNSOLIDATED DEPDSITS**
- OLD COASTAL DEPOSIT OF MIXED TERRESTRIAL AND MARINE SEDIMENTS
 - ALLUVIAL (RIVER-BORNE) SAND AND GRAVEL
 - EOLIAN (WIND-BLOWN) SILT
 - ▨ GLACIAL MORaine, GRAVEL, AND SILT
- BEDRDCK**
- ▨ PRECAMBRIAN VOLCANIC AND METAMORPHIC ROCK
 - CRETACEOUS GRANITIC INTRUSION
 - ▨ PLEISTOCENE BASALTIC ASH
 - ▨ PLEISTOCENE BASALTIC LAVA FLOW--IMURUK FLOW (PARTIALLY CDVERED BY EOLIAN SILT DEPOSITS)
 - RECENT BASALTIC LAVA FLOW -- LOST JIM FLOW
- ▲ HOT SPRING
- * VOLCANIC VENT (NOT ALL SHOWN)
- KNOWN FOSSIL SITE (NOT ALL SHOWN)

SOURCES U S GEOLOGICAL SURVEY 1963 AND SELKREGG 1977



GEOLOGY AND PALEONTOLOGY

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- Maximum expanse of land mass during Pleistocene
- Maximum expanse of glaciation during Pleistocene
- Ocean expanse during Pleistocene
- Present coastline
(boundaries are schematic)

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elevation of about 500 feet. Several small streams drain the valley, and there are thermal springs in two locations. A small thaw lake about 0.5 mile from the hot springs is the only surface water body in the area.

Permafrost

Surface features of the preserve are much influenced by the existence of a continuous permafrost layer. The depth of the seasonally thawed active layer may vary from 1 to 10 feet, depending on the type of surface (e.g., under a lake, gravel bar, or vegetated soil), while the perennially frozen layer below may be 15 to over 200 feet thick.

Permafrost is the cause of several topographic features. Thaw lakes form in depressions where water pools, causing local melting of the permafrost and continued expansion until adjacent lakes join to form large, irregularly shaped, shallow lakes. Pingos are ice-cored hills where the overlying soil is pushed up by the expansion of ice when permafrost reinvades a drained pond, or when ice or pressurized water is injected from below. Ice wedge polygons are extremely common on flat or gently sloping ground where soil in the upper active zone contracts during freezing, leaving symmetrical polygonal cracks which then fill with snow and eventually ice. Solifluction sheets form where the upper active layer, unable to drain down through the permafrost, becomes saturated and slips downslope.

The permafrost and cold-related features are dynamic and may undergo changes noticeable during the lifetimes of human observers. For example, a pingo may crack and a small crater lake form in its summit, or a thaw lake may expand to capture a neighboring stream or pond within a few decades. Disturbance of the permafrost layer by driving over it can start a process of local thawing, in effect creating a thaw lake which can spread much farther than the original disturbance.

Soils

Soils throughout the preserve are the typical peaty and loamy surface layers of arctic tundra lands over permafrost, with some areas (windswept ridges or recent volcanics) having very shallow or no soil development. Virtually all tundra soil types are rated as having medium to high erosion potential if they are disturbed by roads, structures, or other activities like gardening or concentrated grazing of hooved animals. No arable soils occur on the entire Seward Peninsula.

Despite high erosion potential, dispersed grazing by caribou and reindeer is typically listed as an appropriate land use on tundra soils (Selkregg 1977). Specific sites in relatively well-drained gravelly sediments, particularly along the coastline, are less prone to erosion and more appropriate to surface development. Permafrost engineering considerations still apply even in these better-drained soils (Melchior 1979).

Coastline and Interior Lagoons

Another dynamic geologic process at work in the preserve is the development of extensive barrier beaches and lagoons along the Chukchi Sea coast. Active deposition, erosion, and beach ridge formation are taking place from Cape Espenberg to Cape Prince of Wales. In addition to providing an active, self-repairing barrier to storm waves, the shallow inshore lagoons are productive waterfowl areas, and in some cases (e.g., Shishmaref) they provide protected transportation routes. Significant biological resources include the largest seal haulout (resting) area in the Hope Basin, seabird and waterfowl nesting areas, and fall waterfowl staging areas.

PALEONTOLOGY

The paleontology of the Seward Peninsula has not been extensively studied, but several sites have been found that contain pollens, wood and other plant parts, mammal bones, and animal structures ranging in age from Miocene (20 million years ago) up through the late Pleistocene (1 million years ago and later). Collectively, these records may prove to be of great significance in understanding climatic cycles and vegetation patterns as well as the spread of life-forms across the land bridge, even before the period of human migration.

Major known sites within or near the preserve are indicated on the Geology and Paleontology map and are described briefly below.

Kuzitrin Flats--A gravel formation known as Kougarok in this area spans Miocene through Pleistocene times. The older units contain fossil pollen and wood, indicating that the peninsula at one time supported a temperate forest of hardwoods and conifers. Younger Pleistocene fossils include extinct mammoth, bison, and horse. Evidence of beaver dams as well as fossils of typical warm- and cold-adapted plants demonstrate climatic cycles associated with glaciation in the Pleistocene.

Imuruk Lake--Core samples from Imuruk Lake have provided a rich fossil pollen record spanning the last 100,000 years. This record can aid in understanding vegetative changes during climatic cycles when the land bridge was alternately open and closed.

Inmachuk and Kugruk Rivers--Fossil plant materials in river gravel deposits found under Pliocene age lava confirm an earlier warm-adapted vegetation. Abundant fossil beetles of late Tertiary age are apparently the only such insect fossils yet discovered in Alaska.

Cape Espenberg and Cape Deceit--Both these coastal sites contain evidence of Pleistocene flora and fauna, particularly in marine sediments deposited during glacial cycles. Cape Deceit, just east of the preserve boundary, contains some of the earliest North American records of certain animals.

MINERALS, FOSSIL FUELS, AND GEOTHERMAL RESOURCES

Further mineral entry, mining, or fuel development on federal lands in the preserve is prohibited (except on valid existing claims). However, there is a potential for future development on private or selected lands inside the boundary as well as on state lands outside the preserve. The types of mineral resources that could be developed are discussed below.

Currently there are no operating mines within the preserve. There are two groups of unpatented placer claims and two groups of unpatented lode claims. Of these four groups, one group of placer claims and both groups of lode claims are currently under contest for lack of discovery. The remaining placer group has not been examined to date. These claims are indicative of the potential of mining for various metals such as tin and gold.

Metallic and Nonmetallic Minerals

The Seward Peninsula is one of the most highly mineralized areas in Alaska, but much of the area where occurrence is rated as high or very high is south of the preserve (see Mineral Resources and Mining Claim Areas map). Within the preserve, the substantial depth of unconsolidated materials and recent lava flows make most of the northeastern part of the preserve relatively low in mineral development potential.

Historically, the most active mining has been for placer gold, beginning in the 1890s and actively continuing until the 1930s. Some renewed interest in placer mining has recently occurred because of higher market prices for gold. A few small-scale or individual operations continue in areas outside the preserve (e.g., Inmachuk River).

Other metallic minerals occurring on the peninsula include tin, copper, lead, tungsten, antimony, silver, and bismuth. However, only tin and to a lesser extent copper and tungsten have actually been produced from the mining districts in which the preserve is located. Tin production in the Lost River area northwest of Port Clarence is the most significant large-scale mining operation currently underway on the peninsula.

Extensive BLM-managed lands in the Kuzitrin Flats and Bendeleben Mountains (both areas are rated as having high occurrences of gold, lead, zinc, silver, barium, antimony, tin, and tungsten) have recently been opened to mining claims. Nonmetallic minerals on the peninsula include graphite, fluorite, mica, and garnet as well as gravel. Fluorite in the Lost River area is the most promising for commercial production. Potential for commercial production of fluorite combined with current tin mining would make the Lost River area a probable future mining center. Extensive sand and gravel deposits in the preserve are mainly on federal lands and are not available for mining. Gravel deposits on state lands near Ear Mountain have been mentioned as a possible source for new or expanded village construction by Shishmaref.

CHUKCH

MINERAL RESOURCES



METALLIC MINERAL AREA -- HIGH OCCURRENCE



METALLIC MINERAL AREA -- VERY HIGH OCCURRENCE

NONMETALLIC RESOURCES

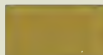
* FLUORITE

* GARNET

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MINING CLAIM AREAS



AREA WITH NUMEROUS CLAIMS

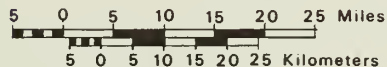


AREA WITH WIDELY SCATTERED CLAIMS



BLM LANDS OPENED TO MINERAL ENTRY NOV. 9, 1983

SOURCE: SELKREGG 1977



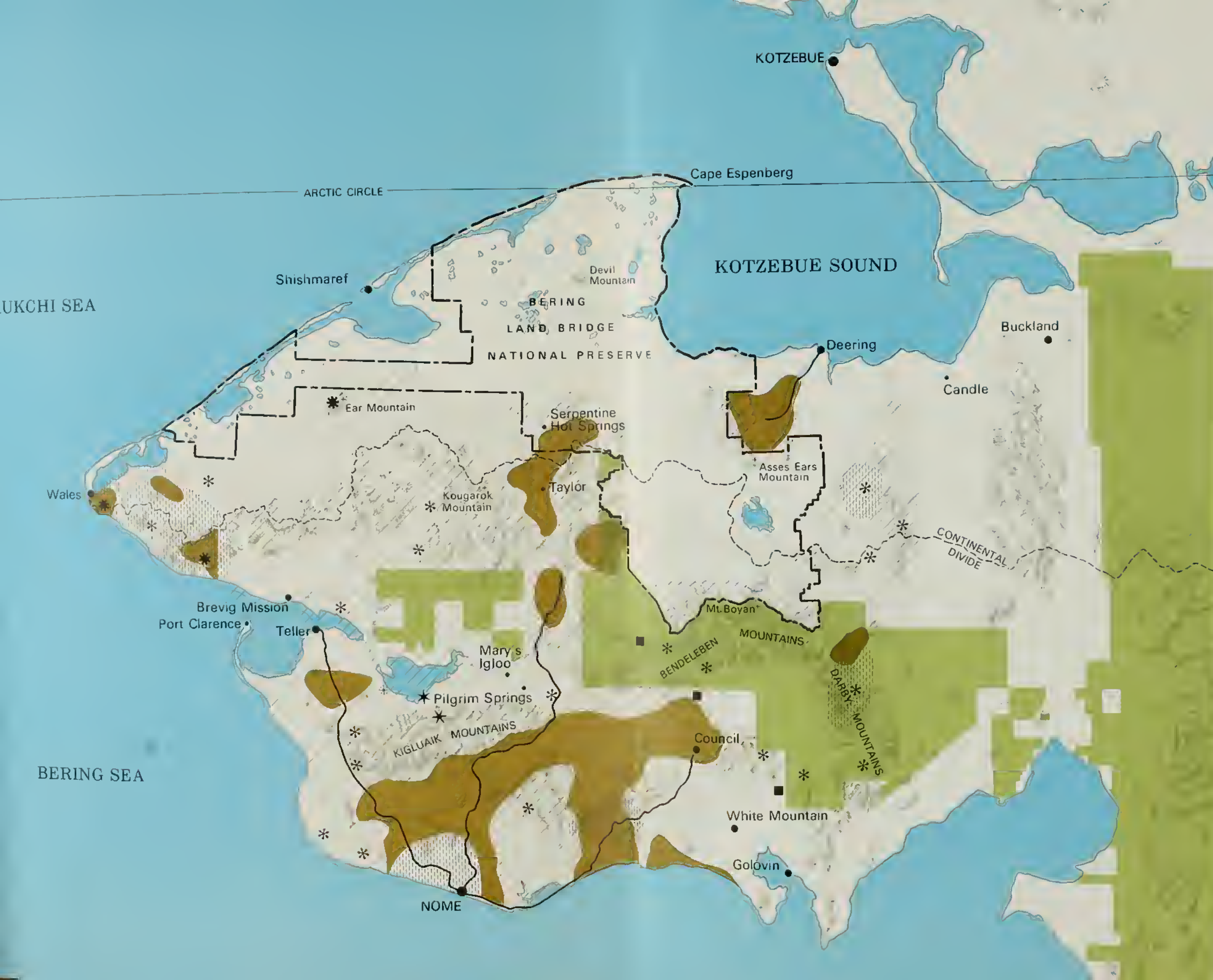
MINERAL RESOURCES AND MINING CLAIM AREAS

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MINERAL RESOURCES

METALLIC MINERAL AREA -- HIGH OCCURRENCE

METALLIC MINERAL AREA -- VERY HIGH OCCURRENCE

NONMETALLIC RESOURCES

* FLUORITE

* GARNET

* GRAPHITE

* MICA

MINING CLAIM AREAS

AREA WITH NUMEROUS CLAIMS

* AREA WITH WIDELY SCATTERED CLAIMS

BLM LANDS OPENED TO MINERAL ENTRY NOV 9, 1983

SOURCE: SELKREGG 1977



0 5 10 15 20 25 Miles
0 5 10 15 20 25 Kilometers

MINERAL RESOURCES AND MINING CLAIM AREAS

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Fossil Fuels and Geothermal Resources

Geophysical and other survey work necessary to evaluate potential petroleum reserves in and adjacent to the preserve is very sparse. Generalizations based on sediment type and age suggest that both the Kotzebue Sound (Selawik Basin) and Norton Sound (Norton Basin) have some potential for the occurrence of oil and gas deposits (Alaska Department of Natural Resources 1983). The Selawik Basin actually underlies preserve lands only in the Cape Espenberg area. A single test well was completed in 1978 by Standard Oil of California under agreement with the NANA Regional Corporation on a small parcel of interrimly conveyed land east of the Killeak Lakes. Results were apparently discouraging.

There is potential for exploration and development of petroleum resources in both the Selawik and Norton basins (see Fossil Fuel and Geothermal Resources map). The state has begun proceedings for the sale of oil and gas leases (sale 45, May 1989--Hope Basin) in Kotzebue Sound and within the state-owned 3-mile limit along virtually all of the preserve's Chukchi Sea coast. The state considers the petroleum potential in this area to be low (Alaska Department of Natural Resources 1983). The federal government has started similar proceedings for oil and gas leases in the Norton Basin outer continental shelf area (sale 100, October 1985). Socioeconomic and ecological impacts of these sales on the preserve are discussed in the "Land Protection Plan."

Minor amounts of coal occur in the preserve west of Deering, with some actual outcrops in the Immachuk River drainage. Apparently there is no commercial potential.

Geothermal resources within the preserve include Serpentine Hot Springs. Discharge at the eastern spring is 35 gallons per minute. The surface water temperature has been measured at 140°F to 170°F (Book, Dixon, and Kirchner 1983). There is only a slight sulfur odor and little evidence of mineral precipitation, although the water from the hot springs is highly mineralized. There is also some potential for geothermal activity around Imuruk Lake. Several small springs at Pilgrim Springs are associated with an area of geothermal energy potential.

HYDROLOGIC RESOURCES AND WATER QUALITY

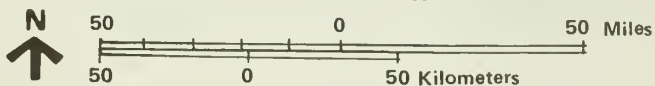
Extensive surface water is present in the northern half of the preserve, but the actual annual hydrologic budget is relatively small owing to modest annual precipitation (10-15 inches). Because the permafrost is impermeable, very little surface water actually recharges groundwater supplies. Groundwater accumulates along streambeds and under larger lakes (particularly in gravelly soils) where permafrost is absent. These groundwater resources are important in maintaining at least a minimum flow in larger streams during periods of low precipitation, but overall the lack of large groundwater resources means that streams rise and fall quickly in direct response to precipitation.

Some major rivers of the area (the Serpentine, Cowpack, Nugnugaluktuk, Goodhope, and Noxapaga) have substantial drainage basins and flow long



-  Oil and gas basin
-  Possible future state or federal oil / gas lease sale (* indicates location of existing lease)
-  Test well (drilled 1978)
-  Potential geothermal energy area (● hot spring)
-  Coal deposit (no commercial potential)

Sources: Fuels — Alaska Department of Natural Resources 1983, 1985; geothermal resources — Selkregg 1977.



FOSSIL FUEL AND GEOTHERMAL RESOURCES

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distances (10-40 miles) through the preserve. Others (the Inmachuk, Kugruk, Koyuk, and Kuzitrin) have only a portion of their headwaters within or along the boundaries. Floodplain determinations have not been formally made for these rivers. Localized flooding during ice breakup is likely to occur on all rivers because of ice dams.

The few available measurements of water quality indicate that the streams and rivers are essentially pristine. However, shallow, poorly drained lakes and ponds with concentrations of waterfowl or grazing animals like reindeer may well contain certain pathogenic microorganisms, including the protozoan Ghirardia lambii.

Most small streams and ponds at this latitude freeze solidly to the bottom in winter and therefore have no mid-winter flow; larger rivers and lakes do not ordinarily freeze solidly, so that there is some liquid water near the bottom. Surface waters in shallow thaw lakes and ponds with slow drainage may have an odor, taste, color, and high iron content that make the water unfit for human consumption.

In general, dependable year-round water supplies for local village residents, or for any potential preserve development, are special problems. Permafrost and annually frozen surface ground also pose special problems for waste disposal to ensure there is no contamination of drinking water.

The lack of water sources was a factor in placer gold mining on the peninsula. Large volumes of water were needed to wash gold-bearing soils from the surrounding gravels. Hundreds of miles of narrow canals, locally called ditches, were constructed in the early 20th century to supply placer mines throughout the southern and eastern Seward Peninsula. One of the ditches, the Fairhaven, led waters from the head of the Kugruk River at Imuruk Lake northward some 30 miles into a different drainage, where it served mines along the Inmachuk River. During their peak period of use, these diversions may have made differences in the flow pattern of several drainage systems. Today all the previous natural patterns have been reestablished.

AIR QUALITY

No local information on air quality exists for the preserve. Extremely cold, calm winter days with temperature inversions occasionally result in trapped air pollutants, but few point sources of pollution exist in the area except for occasional tundra fires. Summer offshore breezes near the coast probably provide substantial mixing.

The preserve is a class II airshed under the federal Clean Air Act. This classification allows some deterioration of air quality, for example, that associated with moderate industrial and population growth.

VEGETATION

The plant life of the preserve is an extremely rich assortment of arctic species. Collectively, the vegetation is known as tundra, but within that

broad classification are many subdivisions and transitional types (see the diagram of generalized plant communities). The preserve contains one of the most extensive and complete sequences of tundra types in North America.

Over 350 vascular plants and 60 lichens have been collected from the preserve. None of these species is found exclusively in the preserve, but about a fourth of them appear to be forms that have originally evolved in the region and subsequently radiated westward to Asia or eastward into northern Canada and the United States.

Various attempts have been made to classify groups of tundra plants into communities (see Melchior 1979). But the classification is complex because of the diversity of groups and the variety of species found at different elevations or on various soils. Plant communities are generally described below and indicated on the Vegetation map.

Basic Tundra Types

The continuum in tundra types is based largely on soil moisture and degree of drainage. Alpine tundra is the driest and best-drained. It occurs in mountainous areas and along well-drained rocky ridges where the soil is coarse, stony, and dry. These windswept sites encourage low, flattened growth of the same tundra plants that are taller and leafier in wetter, less exposed areas. The typical appearance of alpine tundra is scattered very low willows, mats of lichens and crowberry, and a few grasses and ferns in a gravel matrix. This type frequently grades into nearly barren sites where exposure and lack of soil do not support rooted plants. Here only flattened lichens and mosses can survive.

Moist tundra occurs extensively at intermediate elevations on the upland plateaus that separate mountains from coastal lowlands. In some cases tundra is also found in these lowlands where local topography allows better drainage.

Moist tundra is commonly dominated by tussock-forming (bunch) grasses, other grasses, and sedges. The soil is usually saturated; lichens and mosses occur in the wet channels between tussocks. Local variation in soil type or moisture may lead to invasion of shrubs like dwarf birch and various willows.

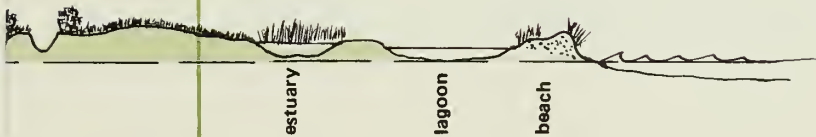
Wet tundra occurs where the soil is continuously saturated during the summer growing season. It is typically interspersed with standing water in lakes, ponds, and sluggish streams. The predominant grasses and sedges are mostly mat-forming on a peaty (high organic) shallow soil. Moisture-tolerant mosses are favored over most lichens. Local variation in wetness can occur in association with the high and low centers and edges of frost polygons.

Grasslands

Seashore grassland occurs along the Chukchi Sea coast on sandy, well-drained beach berms and ridges. These areas may occasionally be



Brackish / salt marsh
grasslands occur in
estuaries and around
lagoons; drier grasslands
on sandy seashore dunes



WLANDS

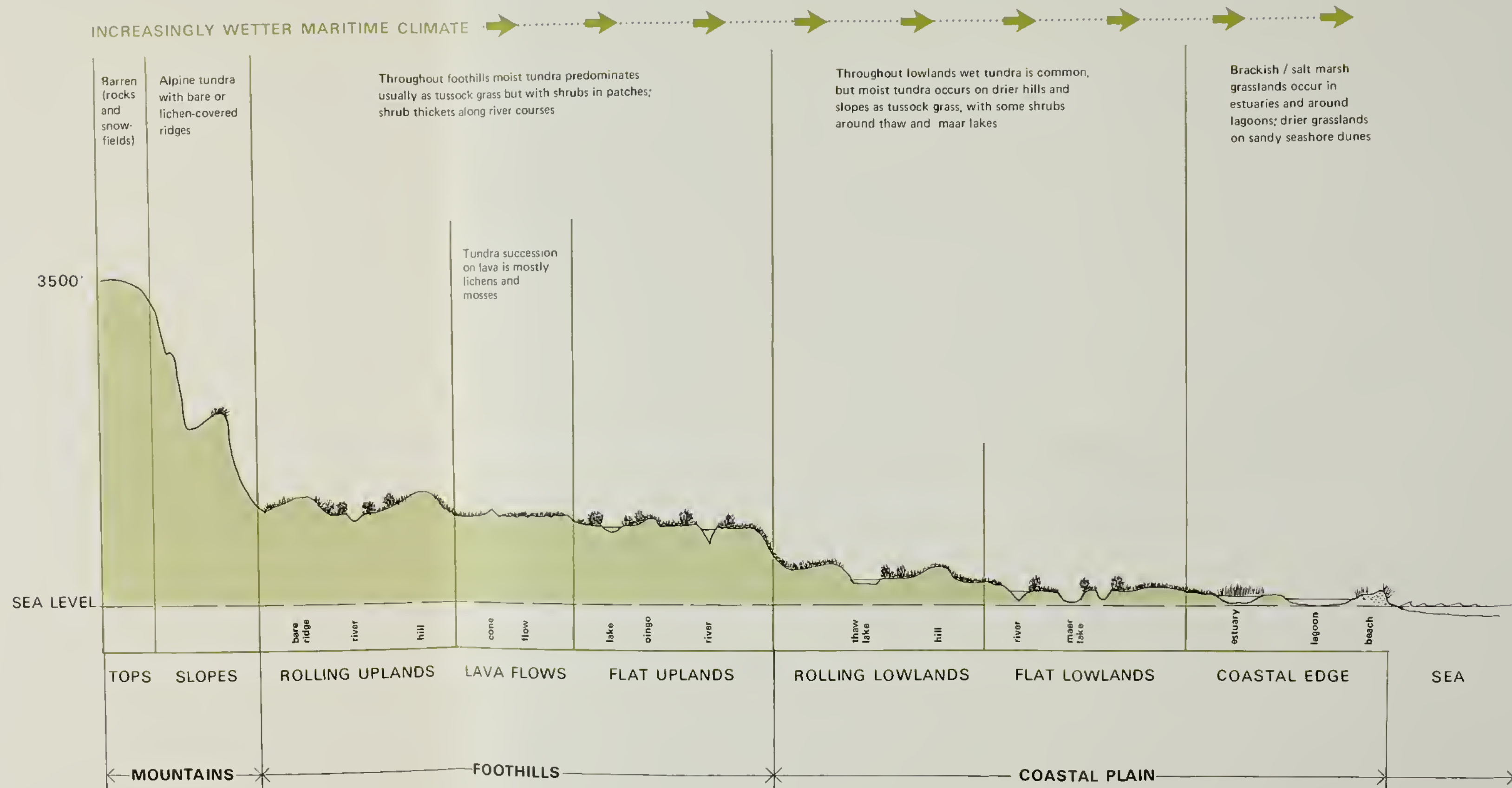
COASTAL EDGE

SEA

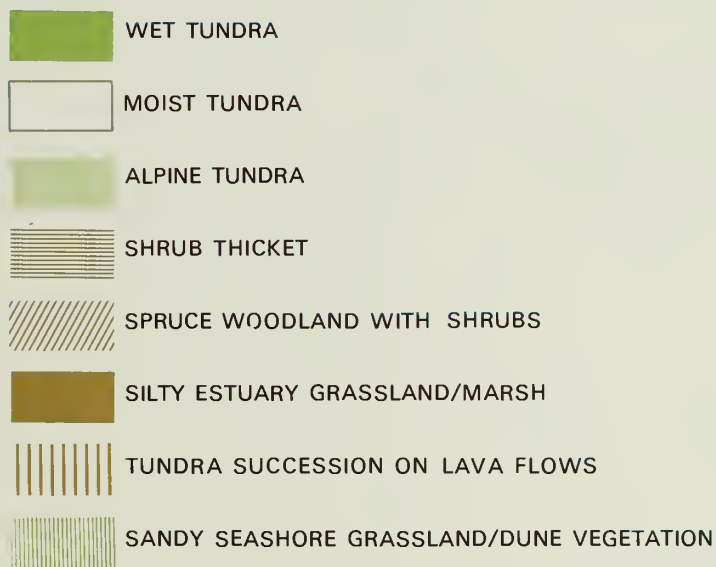
AL PLAIN

GENERALIZED PLANT COMMUNITIES

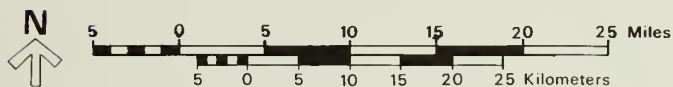
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GENERALIZED PLANT COMMUNITIES
BERING LAND BRIDGE NATIONAL PRESERVE



SOURCES: SELKREGG 1977 AND NATIONAL PARK SERVICE 1973a



VEGETATION

BERING LAND BRIDGE NATIONAL PRESERVE

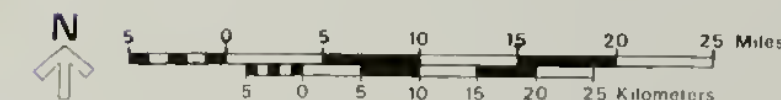
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- WET TUNDRA
- MOIST TUNDRA
- ALPINE TUNDRA
- SHRUB THICKET
- SPRUCE WOODLAND WITH SHRUBS
- SILTY ESTUARY GRASSLAND/MARSH
- TUNDRA SUCCESSION ON LAVA FLOWS
- SANDY SEASHORE GRASSLAND/DUNE VEGETATION

SOURCES: SELKREGG 1977 AND NATIONAL PARK SERVICE 1973a



VEGETATION

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flooded by storm tides, but they are not true tidal marshes. Silty estuary grasslands are more marshlike, being regularly inundated by 2- to 4-foot tides at the mouths of estuaries like the Nugnugaluktuk, Goodhope, and Serpentine rivers. This habitat is especially important for bird species such as the black brant and emperor goose.

Shrub Thickets

Along the floodplains on new alluvial soils, willow floodplain thickets with some alder develop. Another shrub thicket type, the birch/alder/willow thicket, is a transitional community between treeless tundra and boreal forest. Although no true forest occurs within the preserve, these shrub thickets are found on the uplands nearest the only sparse woodlands near the eastern boundary. Shrub thickets of this general composition can also be found locally in patches within moist or alpine tundra. These thickets form the principal cover and food for moose.

Forest and Woodlands

The true boreal white spruce forest that dominates interior Alaska does not extend into the preserve. Its westernmost limit lies just south and east of the boundary. Only the uppermost drainage of the Kugruk and Koyuk rivers east of Kuzitrin Lake supports white spruce in a scattered woodland growth form. This transition zone between forest and tundra adds greatly to the botanical significance of the preserve. Study of present vegetation patterns can provide valuable information that can be used in understanding the fossil record of temperate forests that covered the peninsula during earlier warmer periods.

Lava/Tundra Succession

A specialized plant community composed almost entirely of lichens and mosses is found on the relatively fresh lava flows of the Imuruk Lake area. Sometimes called rock deserts, the older substrates are covered with varying thicknesses of silt, but a large amount of the newer bare rock is now colonized by lichens and mosses. This succession between bare lava and lichen-mantled rock is especially valuable in botanical research because very few examples of fresh lava being colonized by lichens and mosses are available in the high arctic.

WILDLIFE

Birds

The Seward Peninsula is an extremely rich and diverse area for birds. Of the more than 350 species known in Alaska, at least 170 are known from the Seward Peninsula and some 108 species have been recorded in and around the preserve (Melchior 1979). This diversity is related in part to the preserve's nearness to Asia and also to the occurrence of three distinctive habitats--marine/estuarine, tundra, and boreal forest (see the Seabird/Waterbird Habitat and Salmon Streams map). The Asian

birds include some species that regularly migrate across the Bering Strait to breed on the peninsula. Some North American species go the opposite direction to Siberia or farther to breed. Because of the harsh winter conditions, only five or six species can be found throughout the winter season.

The marine/estuarine habitat, together with extensive freshwater ponds and lakes, provides resting, nesting, feeding, and molting grounds for large populations of migratory geese, ducks, and shorebirds. Many of the waterfowl species are important in local subsistence use. The salty grasslands and marshes at the mouths of the Nugnugaluktuk, Pish, and Goodhope rivers and Cape Espenberg are especially important for waterfowl adapted to estuarine conditions.

Colonies of seabirds are also found within the preserve, with the most important being on the Sullivan Bluffs and Cape Deceit west of Deering. A large number of pelagic seabirds, including various species of gulls, can be found in the waters immediately off the Chukchi Sea coast.

The estuarine habitat along the preserve's Chukchi Sea coast and in the river deltas is very important for migrating and nesting waterfowl. These lagoons and estuaries are used as resting areas during northward and southward migrations.

The tundra habitat supports the majority of the preserve's passerine birds, as well as hawks, owls, and other predatory birds. Relatively few boreal forest birds are found within the preserve, but such species as the varied thrush, American robin, and an assortment of warblers are sometimes seen along the eastern boundary where "stringers" of white spruce forest extend near the preserve.

Routine surveys of distribution and abundance are conducted (Fish and Wildlife Service 1983a). Seasons and bag limits are determined by local regulations. Management plans have been prepared by the Alaska Department of Fish and Game (ADF&G) for raptors and seabirds, and a site-specific gyrfalcon plan has also been prepared for Serpentine Hot Springs (ADF&G 1984d). None of these bird species is being actively managed. Seabird eggs from the colonies at Sullivan Bluff are sometimes taken by local residents of Deering as a traditional subsistence resource (Fish and Wildlife Service 1982, 1983b).

Large Mammals

Grizzly bears occur generally throughout the Seward Peninsula and in the preserve (see Large Mammal Habitat map). Harsh long winters and a relatively short summer season when the availability of food protein is limited account for bears being smaller in size and fewer in number than in more productive southern parts of the state. Black bear, a more forest-oriented species, is not found in the preserve.

Grizzlies typically tend to use river valleys after emerging from their upland winter hibernation dens. At this time they feed on carrion left from winter kills, on moose and reindeer calves, and on berries that stayed on the plants over the winter. In the summer bears may move to



WATERFOWL HABITAT



SIGNIFICANT ESTUARINE NESTING AREA



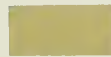
HIGH-DENSITY AREA



MEDIUM-DENSITY AREA



NOTE: PRIMARILY IN WET TUNDRA AND FRESHWATER LAKES



LOW-DENSITY AREA

NOTE: GENERALLY ALONG FRESHWATER STREAMS

SEABIRD HABITAT



COLONY

(MURRES, KITTIWAKES, GULLS, AND OTHERS)

SALMON STREAM

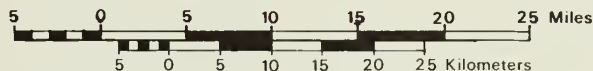


MAJOR STREAM

NOTE: PINK AND CHUM MOST ABUNDANT

SOURCE: SELKREGG 1977

NOTE: RAPTORS, INCLUDING GOLDEN EAGLES AND GYRFALCONS, OCCUR IN MOUNTAINS AND FOOTHILLS; PASSERINE BIRDS OCCUR ON DRIER TUNDRA AND ALONG STREAMS



SEABIRD/WATERFOWL HABITAT AND SALMON STREAMS

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BERIN



WATERFOWL HABITAT

-  SIGNIFICANT ESTUARINE NESTING AREA
 -  HIGH-DENSITY AREA
 -  MEDIUM-DENSITY AREA
 -  LDW-DENSITY AREA
- NOTE: PRIMARILY IN WET TUNDRA AND FRESHWATER LAKES
- NOTE: GENERALLY ALONG FRESHWATER STREAMS

SEABIRD HABITAT

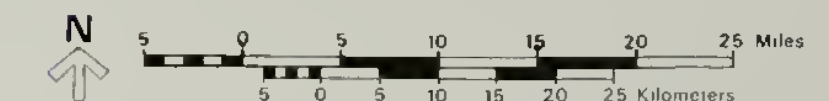
-  COLONY (MURRES, KITTIWAKES, GULLS, AND OTHERS)

SALMON STREAM

-  MAJOR STREAM
- NOTE: PINK AND CHUM MOST ABUNDANT

SOURCE: SELKREGG 1977

NOTE: RAPTORS, INCLUDING GOLDEN EAGLES AND GYRFALCONS, OCCUR IN MOUNTAINS AND FOOTHILLS; PASSERINE BIRDS OCCUR ON DRIER TUNDRA AND ALONG STREAMS

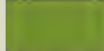


SEABIRD/WATERFOWL HABITAT AND SALMON STREAMS

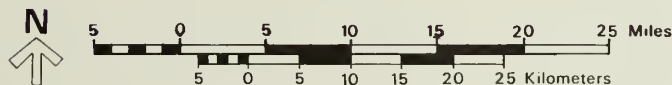
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- STATE GAME MANAGEMENT UNIT BOUNDARY
- — CARIBOU: WESTERN EXTENT OF WINTER RANGE
- MOOSE**
-  WINTER CONCENTRATION
-  FALL CONCENTRATION
NOTE: WIDELY DISPERSED IN SUMMER
- MUSK-OXEN**
-  PRIMARY HERD CONCENTRATIONS
NOTE: INDIVIDUALS, SMALL GROUPS WIDELY DISPERSED THROUGHOUT THE PENINSULA
- GRIZZLY BEARS**
-  INTENSIVE FALL USE
-  INTENSIVE SPRING USE
-  BEAR CONCENTRATION ALONG STREAMS
NOTE: MAY BE FOUND THROUGHOUT AREA

SOURCE: SELKREGG 1977



BERING

LARGE MAMMAL HABITAT

BERING LAND BRIDGE NATIONAL PRESERVE

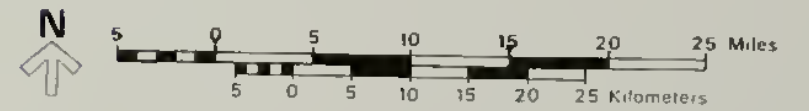
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DSC / MARCH 1985 / 182-20,011A



- STATE GAME MANAGEMENT UNIT BOUNOARY
- - - CARIBOU: WESTERN EXTENT OF WINTER RANGE
- MOOSE**
 - (---) WINTER CONCENTRATION
 - (---) FALL CONCENTRATION
NOTE: WIDELY OISPERSED IN SUMMER
- MUSK-OXEN**
 - (//) PRIMARY HERD CONCENTRATIONS
NOTE: INDIVIDUALS, SMALL GROUPS WIDELY OISPERSED THROUGHOUT THE PENINSULA
- GRIZZLY BEARS**
 - (#) INTENSIVE FALL USE
 - (■) INTENSIVE SPRING USE
 - (●●●●) BEAR CONCENTRATION ALONG STREAMS
NOTE: MAY BE FOUND THROUGHUOT AREA

SOURCE: SELKREGG 1977



LARGE MAMMAL HABITAT

BERING LAND BRIDGE NATIONAL PRESERVE

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coastal lowlands to graze on grasses and sedges or to concentrate along salmon streams. Berries are important to their fall diet before hibernation.

The preserve is located in state game management units 22 and 23 (see the Large Mammal Habitat map). In 1976 the state considered the grizzly population as low to moderate, and about as numerous regionwide as they ever were (ADF&G 1976). Some local areas, however, may have shown some declines. Few attempts have been made to specifically estimate the number of grizzlies within the preserve. Accurate estimates of grizzly bear numbers in unit 22 are unavailable, but based on research in other areas of Alaska, population estimates range from 370 to 640. Most reported hunting for grizzly bears on the Seward Peninsula during spring and fall hunting seasons is concentrated outside the preserve along the three road systems originating in Nome and along major rivers accessible by boat. Reported 1984 harvest in game management unit 22 was 46.

The wolf was known to range over the Seward Peninsula in historic times. But the introduction of reindeer herds and a long history of predator control and bounties (lasting through the 1960s) has probably resulted in low wolf numbers in the preserve. ADF&G staff in Nome estimate that the wolf population on the peninsula in 1983 was 100 to 200, up from 40 or 50 in the early 1970s. Most wolves are reported in the eastern part of the peninsula within spruce forest areas, which provide better cover than the open tundra. Wolf tracks were occasionally seen by NPS survey teams in the 1970s, and it is believed that wolves are sometimes shot by reindeer herders. Some wolves may still be taken legally through subsistence and sport hunting or trapping.

Caribou occur in large free-ranging herds to the north and east of the Seward Peninsula, but they do not currently occur within the boundaries of the preserve. Historically caribou occupied most of the peninsula until about the 1870s. These animals were associated with the western arctic herd, whose winter range is south of the Brooks Range. In earlier times the Seward Peninsula apparently served as winter caribou range during periods of high populations. The herd may now be approaching such a high, as suggested by 1984 estimates that are nearly three times the size of estimates in the late 1970s (200,000 versus 70,000). The potential therefore exists for a winter caribou migration extending to the central Seward Peninsula, possibly resulting in competition with reindeer herds (see Reindeer Range map in the "General Use and Development" section). The "Western Arctic Caribou Herd Strategic Management Plan" for the area recommends monitoring caribou migrations and recognizes the potential for conflict (ADF&G 1984e).

Musk-oxen also originally ranged over the Seward Peninsula, but they were locally eliminated by the early 1900s. The state of Alaska has reintroduced the musk-oxen into their former range, and about 70 animals were introduced on the peninsula in 1970 and again in 1981. These introduced animals have produced two herds totalling about 250 animals, plus a few small groups not associated with the main herds. The observed high annual growth rate (16-20 percent) is probably due to the lack of competition from other grazers, low predation rates, and the protective behavior patterns of musk-oxen. Although the main herds are now concentrated outside the preserve, individuals or small groups range

widely throughout the peninsula. A continued increase in the musk-oxen population could result in herds or individuals moving into the preserve, possibly competing with reindeer or other animals. The musk-ox population on the peninsula is being closely monitored by the Alaska Department of Fish and Game to identify any problems due to rapid growth and expansion of the herds (e.g., habitat destruction or interaction with other species). No controls are now being applied, and no hunting is allowed, but limited hunting may eventually be allowed.

Before the 1950s moose were generally absent throughout northwestern Alaska, but in the past 30 years moose range has expanded dramatically. As many as 3,000 animals have recently been estimated as being resident on the Seward Peninsula. Moose concentrate in winter along watercourses where they browse on willows in the riverine shrub thickets. Although shrub thickets may occur outside these river valley areas, the lower growth and deeper snows make these inaccessible to moose. During summer and fall moose may be more broadly distributed, but they still feed on willows in both lowlands and uplands. Moose on the peninsula have quite large home ranges, and they may frequently move into and out of the preserve. Within the preserve moose have been seen or their presence noted in all the major drainages (Melchior 1979), but generally not along the coast. Although not all experts agree, the major factor limiting future population growth will likely be the availability of willow browse, rather than wolf or grizzly predation or hunting. An increase in moose harvest for both subsistence and recreational use has paralleled the expansion of moose populations on the peninsula. To some extent moose are being harvested rather than marine mammals, and they may also be a partial substitute for the caribou which are no longer available. Reported harvest is considered lower than actual harvest because some moose taken for domestic use are not reported. No reliable estimates of the total harvest within the preserve are available; for the entire peninsula the total harvest may be as high as 500 animals annually.

Furbearers and Other Small Mammals

Small mammals considered furbearers by the state (i.e., providing commercial or subsistence skins through trapping or hunting) are not particularly abundant in the preserve. Scarce but favored animals like wolverines are taken if the opportunity arises. Red fox, arctic fox, and short-tailed and least weasel are the most likely targets where trapping does occur.

Harvest of furbearers in the preserve is controlled under the "Draft Greater Alaska Furbearer Management Plan" (ADF&G 1984b). The occurrence of attractive furbearers is low within the preserve, and little survey or management is taking place. Reported harvest is very low, although unreported harvest incidental to hunting larger mammals or winter travel may occur.

Fish

The freshwater and anadromous fish of the preserve have not been well studied. Known salmon streams are indicated on the Seabird/Waterfowl

Habitat and Salmon Streams map. The fish species now known are representative of those found on the peninsula. Small fishes such as the nine-spined stickleback are abundant enough to be an important food source for birds and larger fishes. Salmon, grayling, char, and other species are locally important for subsistence. Although these larger species are present in the preserve, fishing opportunities are considered greater outside the preserve. Salmon runs are reported in the lower parts of the Arctic and Serpentine rivers in the preserve, and also in the Inmachuk. Salmon runs in the lower Kuzitrin and Koyuk rivers apparently do not extend into their respective headwaters within the preserve.

No ADF&G fishery management projects are currently underway in the preserve, and no commercial fishery exists. Potential for a herring fishery in Shishmaref Inlet has been identified. Whitefish and anadromous fish, including pink and chum salmon, have been surveyed in nearshore marine waters, the lagoons, and the lower reaches of the Serpentine River.

Marine Mammals

The preserve does not actually include marine waters off its shores, although it does include several small islands southeast of Cape Espenberg. These areas, as well as the Cape Espenberg beaches, are important seal haulout areas.

Marine mammals are an important element in the subsistence lifestyle of local villagers. Walrus, bowhead whale, and seals (bearded, ringed, and ribbon) are taken most often, but other whales (including beluga) and seals are also found offshore. Polar bears are found along the Chukchi Sea coast in winter, where they move into the area with the pack ice.

Although marine mammals do not actually spend much time on preserve lands, there are hunting camps and transportation routes within the preserve that are used in the traditional taking of these and other marine species. Polar bears and walrus are managed by the U.S. Fish and Wildlife Service, and seals and whales are managed by the National Marine Fisheries Service. Endangered whale species that can be found north of the Bering Strait are bowhead, gray, humpback, and right. The harvest of all species of marine mammals is controlled by provisions of the Marine Mammals Protection Act of 1972. Among other regulations, this act provides for certain subsistence harvest by native Alaskans but forbids recreational hunting.

ENDANGERED SPECIES

The endangered arctic peregrine falcon, Falco peregrinus tundrius, likely passes through the preserve but is not known to nest there. No other endangered or threatened animals are known in the preserve. Two plant species, Artemisia senjavinensis (a composite shrub) and Carex jacobipeteri (Anderson sedge), are now being considered for future listing as threatened or endangered.

CULTURAL RESOURCES

HISTORY

It was across the land bridge and later across the Bering Strait itself that successive cultural groups entered northwest Alaska. Eventually these people spread throughout North and South America, although some groups explored, settled, and adapted to Alaska and the Arctic. The prehistoric record of the Seward Peninsula contains part of the story of this process. However, knowledge of the prehistory of the preserve itself is hampered by the lack of information, and little of the area has been thoroughly investigated. Most of the current knowledge about the prehistory of the region is based on data from sites outside the preserve (Onion Portage and Cape Krusenstern).

The archeological record reveals several main periods of cultural development and adaptation in the region (see Archeological Cultural Sequence in Northwest Alaska). The earliest known people (Paleoarctic culture) arrived in the region 8,000 B.C. or earlier, and there are few traces of their presence. They probably came from northern Asia and were nomadic hunters and gatherers, living off the land and traveling in small groups. These early people depended on caribou and other land animals for their subsistence.

The next wave of people apparently moved into the region from the forested regions to the south and east. These Northern Archaic folk arrived about 4,500 B.C. and had a distinctively different material culture, apparently depending on caribou and freshwater fish for their livelihood. These people stayed inland and near the trees most of the time. Because of their interior origin, many archeologists consider that these people represent an Indian culture, rather than an Eskimo culture.

Around 2,200 B.C., arctic-oriented cultures again appeared in northwest Alaska. Either a new wave of people or new ideas swept into Alaska from Asia, repeating the usual pattern of influence. Known as the Arctic Small-Tool tradition, named after their finely made stone tools, this was a dynamic tradition, with the people adapting to make efficient use of a variety of arctic resources. The earliest culture of this tradition spread as far south as Bristol Bay and as far east as Greenland, and both interior and coastal areas were occupied. These people were the first to spread throughout arctic Canada, and their long timespan (the tradition lasted over 1,000 years) shows that they were adept at using both coastal and interior resources.

By about A.D. 500 people of the Norton and the later Ipiutak traditions shifted much of their emphasis to coastal living and marine resources. There are some indications that whaling had begun and was gaining in importance. Interior resources, such as caribou, from the tundra and the forest were still sought and used extensively. Norton settlements sprang up in most good coastal locations from the Alaska Peninsula north to a point east of the U.S.-Canadian border. Fishing with seine nets became a primary activity for food. The later Ipiutak people developed an advanced art style based on ivory carving.

B.C.

A.D.

500

1000

1500

2000

AMERICAN PALEO ARCTIC TRADITION



Ivory carving from Ipiutak burial. Ipiutak carved art objects from antlers and ivory.

Basically a culture, the used side a notched spears and knives and Northern A appear to be that time.

Ipiutak ?



Caribou hunting enabled some Inupiat groups to live year round in the inland areas, while others remained on Kotzebue Sound to fish and hunt whales.

Toy dogs and sled carved from ivory about 1880

The first definite evidence for the use of dog teams shows up in the archaeological record. Before this time sleds were pulled by hand and dogs were only pack animals

NORTHERN MARITIME TRADITION

Birnirk ?

Western Thule

Inupiat

ulture is sent ?

Some nearby rivers (Kobuk, Noatak, etc.) were settled at this time.

Evidence reveals the development of advanced fishing techniques.

(Adapted from Anderson, 1981: 56)

ARCHEOLOGICAL CULTURAL SEQUENCE IN NORTHWEST ALASKA
BERING LAND BRIDGE NATIONAL PRESERVE

United States Department of the Interior / National Park Service

Around the same time as the previous cultural shift (A.D. 500), a new cultural group appeared--the Northern Maritime tradition. It is not known whether these people came from Asia or were descendants of earlier arctic peoples in Alaska. They developed the present Eskimo lifestyle, using marine resources such as seal, walrus, and whale plus inland resources such as caribou and musk-oxen. They developed from the Birnirk culture into the Western Thule culture, which spread all across the Arctic from Norton Sound to Greenland. From the Western Thule culture came the modern Inupiaq (identifiable in the archeological record by around A.D. 1200). The Inupiaq developed or used advanced fishing and hunting techniques such as the drag float and the sinew-backed bow. The first archeological evidence for the use of dogs to pull sleds shows up by A.D. 1500. Before this sleds were pulled by people, and dogs were used as pack animals. Some people moved inland; others moved to the rivers (e.g., represented by the Arctic Woodland culture on the Kobuk River northeast of the preserve) and developed more specialized lifestyles. However, extensive trading networks and communications were maintained over northwest Alaska and the Seward Peninsula.

Cultures on the Seward Peninsula were also influenced by the Bering Sea cultures to the west. Best known from St. Lawrence Island, the Old Bering Sea/Punuk maritime cultures are similar to Inupiaq and could have influenced the later development of the Thule culture on the Seward Peninsula. The degree of influence on the preserve itself is an important area for further study.

European exploration and development began in the 1700s when Russian and then English explorers mapped the Bering Strait and the land to the north. According to early reports, there were five native groups on the Seward Peninsula speaking different dialects of the Inupiat language.

The traditional lifestyles of the Inupiaq remained fairly stable until the mid-19th century. Although Russian trade goods had reached northwest Alaska during the 1700s through trade with Siberian peoples across the Bering Strait, trade did not significantly affect local people. Eskimo culture began to change significantly in response to outside contact after 1850.

In the 1860s natives of the peninsula were aware of and involved with the few white men in the area and their whaling, trading, and exploring activities. During this time the fur trade expanded in economic importance, and the use of sophisticated dog sledding methods became common. These concurrent developments provided greater mobility and resulted in people spreading out over larger areas in winter and abandoning many of the larger villages in northwest Alaska. Not until schools, post offices, and trading posts were set up around 1900 were large villages established (Anderson 1981:57).

In the late 1890s the gold rush in the southern portion of the peninsula attracted thousands of miners, who quickly spread over the peninsula to search for gold. Mining camps were set up at Deering, Taylor, and Serpentine Hot Springs, among other sites. The Alaska Road Commission marked cross-peninsula trails, and remnants of shelter cabins built along

these trails still exist within the preserve. Villages such as Mary's Igloo became supply stations for the miners. Mining continued at a high level on the peninsula until the 1920s. Evidence of mining activity within the preserve includes the Fairhaven Ditch, which was constructed in 1906 to divert water from Imuruk Lake for hydraulic mining operations on the Pinnell River, a tributary of the Inmachuk River.

Throughout this time natives continued to depend on natural resources for subsistence, although there were changes in technology and material needs. In 1917-18 flu epidemics decimated families and villages and strained social organization in the remaining villages. Some natives began to participate in the mainstream of the Euro-American economy during World War II when the peninsula became an important base of operations and there was another major influx of nonnatives into the area. The war, post-war military construction, and recent oil and gas booms have all affected Seward Peninsula residents.

CULTURAL RESOURCES OF THE PRESERVE

The Seward Peninsula is especially important for archeological and paleontological studies because its record of the past was not disturbed by the great ice ages. To date 85 prehistoric and historic sites have been recorded within the preserve. These sites range from one that is more than 10,000 years old (Trail Creek caves) to sites of the historic period (Fairhaven Ditch). The Trail Creek caves site is one of the oldest known sites in Alaska (Larsen 1968). More such sites will likely be found as further investigations are conducted within the preserve. Later archeological sites abound on the preserve, including caribou hunting sites around Imuruk Lake, stone cairns on many of the hills in the region (Powers et al. 1982), and many sites along the coastline (Giddings 1973).

Many cultural resource sites are located in the Imuruk Lake area, from Cloud Lake to Kuzitrin Lake. In this area rocky outlines remain, marking seasonal campsites and old village sites. Other features are rock cairns, hunting blinds, and shelters on ridges or hilltops. The function of these cairns is not well known; some probably served as landmarks to guide parties in bad weather, while others may have been used as shelters and lookouts or to channel caribou into preferred passes.

Another area with high potential for archeological resources is Cape Espenberg. The succession of dune ridges may provide information on human migration and habitation similar to the information collected from Cape Krusenstern.

One of the most important cultural sites within the preserve is Serpentine Hot Springs, which has long been recognized by natives for its spiritual and medicinal values. (The Inupiat name for the springs is Iyat, which means cooking pot.) The Serpentine River valley has traditionally been used as the training ground for shamans in northwest Alaska, and the hot springs were known as the site where the area's most powerful shaman spirits lived. Eskimos continue to use the springs for traditional cultural and medicinal purposes. According to a discussion of native healing in Alaska, "the therapeutic value of the hot springs is enhanced



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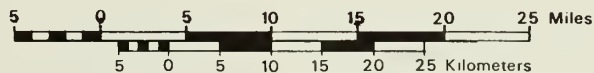


CEMETERY SITE AND HISTORIC AREA CERTIFIED BY BUREAU OF INDIAN AFFAIRS AS SIGNIFICANT



OTHER KNOWN SIGNIFICANT SITE

NOTE: THIS MAP DEPICTS KNOWN CULTURAL RESOURCES. MOST OF THE PRESERVE HAS NOT YET BEEN INVENTORIED,SO DISTRIBUTION AND SIGNIFICANCE OF ALL CULTURAL RESOURCES IS NOT YET KNOWN.



BERING

CULTURAL RESOURCES

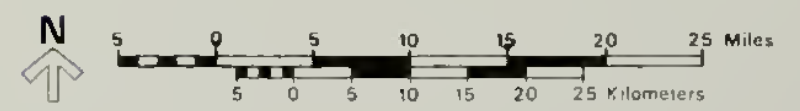
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-  CEMETERY SITE AND HISTORIC AREA APPLIED FOR BY REGIONAL CORPORATION—SIGNIFICANCE NOT YET DETERMINED
-  CEMETERY SITE AND HISTORIC AREA CERTIFIED BY BUREAU OF INDIAN AFFAIRS AS SIGNIFICANT
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CULTURAL RESOURCES

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by the interplay of cultural, social, and spiritual components" (Book, Dixon, and Kirchner 1983). The springs were associated with a small gold-mining settlement in 1901, and prospectors built a cabin near the upper spring and a bathhouse over a bathing pool (Geological Survey 1971).

A brief survey of the Serpentine Hot Springs area by NPS cultural resource staff in 1983 found no physical evidence of prehistoric sites. About 0.5 mile to the north and downstream of the existing development is the site of a former cabin, a wood-lined pool in the hot springs, several depressions, and unvegetated rectangular areas that could have been tent sites or garden areas. There are also remains of broken bottles and rusty metal. Evidence of historic use and additional artifacts may be found by further field review.

The present structures at the hot springs are not significant historically. The existing cabin is a 20-foot by 54-foot, modular "knock down" World War II army structure. It is believed that the cabin was towed on a sled and reassembled at its present location around 1949 as part of an Alaska Road Commission project.

The Cultural Resources map shows the location of cemetery and historic sites that have been applied for under ANCSA, section 14(h)(1), and the locations of other known cultural resources within the preserve. To date the significance of only two 14(h)(1) sites, Serpentine Hot Springs and the Issak historic site, have been evaluated by the Bureau of Indian Affairs. Both sites were found to contain values that make them eligible for conveyance to native corporations. Serpentine Hot Springs has been recognized for its significance as a spiritual and healing place for the natives of the region; the Issak site has been certified as a significant abandoned prehistoric village that has also been in continuous use as a seal hunting camp. The Bureau of Land Management has determined that the Issak site is eligible to be conveyed as a cemetery site and historical area and that the Serpentine Hot Springs is not eligible because of prior claims on the site.

GENERAL USE AND DEVELOPMENT

ACCESS AND CIRCULATION

Access to Nome and Kotzebue, the major cities near the preserve, is by daily jet service, with connecting flights to Deering, Shishmaref, and Wales. Charter and air-taxi services are available in both Nome and Kotzebue; floatplane charters are available only in Kotzebue.

Access to the preserve from Nome and Kotzebue is difficult and costly, typical of access to most bush areas of Alaska. With no regularly scheduled service to the preserve, air charters or private planes provide the primary means of access. Two unimproved and unmaintained airstrips are inside the preserve, at Serpentine Hot Springs and adjacent to Ear Mountain (see Existing Conditions map). The landing strip at Hot Springs was probably constructed by the Alaska Railroad Commission in the 1930s. An abandoned, unusable airstrip is located adjacent to Lava Lake. Several private airstrips are part of mining areas just outside the preserve at Utica to the northeast, the Rainbow mining camp in the southwest, other wheeled-plane landing areas are the sandy beach of the northwest coast, Devil Mountain Lake beach, and gravel bars exposed on portions of the Nuluk, Kugrupaga, Arctic, Cowpack, and Espenberg rivers. Floatplanes or amphibious planes allow much greater access to the preserve. With expanded use of these craft, the many lakes, lagoons, and estuaries in the preserve are potential visitor use areas.

There are very few roads within the region. The only route in the preserve specifically mentioned in ANILCA (sec. 201(2)), from Deering to the Taylor Highway is open to customary patterns and modes of travel during periods of adequate snow cover. This route appears on the ground as a pair of tracks on the tundra. In wet areas the trail branches out to several tracks and is up to 100 feet wide. The trail has not been used since 1980. During the 1930s and 1940s the trail was an important transportation route to bring supplies from Nome to the mining areas near Deering. Other routes that approach the preserve are the Taylor Highway, which runs 86 miles from Nome to the Kougarok River (approximately 20 miles from the preserve), and a road from Deering that travels 25 miles along the Inmachuk River to within 5 to 10 miles of the preserve. The Taylor Highway is known locally as the Kougarok Road.

A former road or tractor trail continues north from the Kougarok airstrip to Taylor and on to Serpentine Hot Springs. Portions of this road are impassable, and the road is not maintained.

Winter trails used by snowmachines and dog sleds cross the preserve in several locations. These trails provide access from Shishmaref to Wales, Kotzebue, Deering, and Brevig Mission, as well as to Serpentine Hot Springs.

Another means of access and circulation is by boat from Deering or Shishmaref to points on the coast or in the lagoons. However, high winds and rough seas frequently make boat use impossible.



PUBLIC AIRSTRIP



PRIVATE AIRSTRIP



EMERGENCY AIRSTRIP (unverified)



ABANDONED AIRSTRIP



WINTER TRAIL



CABIN



EXISTING MINING ACTIVITY



REINDEER CORRAL



EMERGENCY SHELTER CABIN



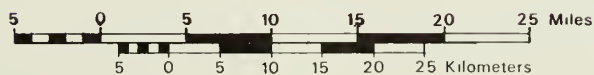
IMPROVED ROAD



WINTER TRAIL



TRACTOR TRAIL TRACE



EXISTING CONDITIONS

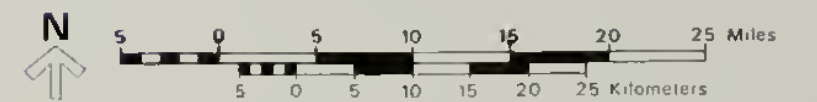
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-  PUBLIC AIRSTRIP
-  PRIVATE AIRSTRIP
-  EMERGENCY AIRSTRIP (unverified)
-  ABANDONED AIRSTRIP
-  WINTER TRAIL
-  CABIN
-  EXISTING MINING ACTIVITY
-  REINDEER CORRAL
-  EMERGENCY SHELTER CABIN
-  IMPROVED ROAD
-  WINTER TRAIL
-  TRACTOR TRAIL TRACE



EXISTING CONDITIONS
BERING LAND BRIDGE NATIONAL PRESERVE
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Hiking to and in the preserve from the nearby roads or from Shishmaref and Deering is also possible, although there is little hiking at present. Wet tundra and marsh make hiking difficult, yet drier ridges can be found as well as some tractor trails and beaches.

SUBSISTENCE USE

Subsistence uses are an essential part of the lifestyle for most residents on the Seward Peninsula. Food is provided through the harvest of marine mammals (seal, walrus, whale, polar bear), fish, game, birds, and wild plants. In addition fur and natural fibers are used for clothing, handcrafts, and cash income. This traditional subsistence way of life provides stability and contributes to social cohesion and welfare by providing a means of exchange and distribution of goods between relatives, friends, and villages.

Today subsistence activities include the use of modern equipment to facilitate the harvest. Snow machines and wooden, metal, or fiberglass boats powered by outboard motors (replacing dog sleds and skin boats) have greatly expanded the range of subsistence activities. Individuals or a relatively small party can now accomplish activities that once required the efforts of large groups. The time and effort once required to obtain food for dog teams is now directed toward acquiring cash to purchase and support mechanical vehicles. The demands posed by wage employment, schools, modern homes, and other factors tend to limit the time allotted to subsistence activities, so that harvests often occur in "bursts" of intense activity rather than long-term sustained practices. Also a few persons tend to carry out subsistence harvests for their families, while others pursue wage earning employment or offer other types of support services.

Subsistence activities continue to provide substantial economic support for local residents. Protein gained through hunting and fishing activities is a major contributor to the local diet. Without this source of food, many families would find it difficult if not impossible to purchase the supplies necessary to live in the region. Within the preserve a limited amount of trapping provides furs for personal clothing or sale.

Besides providing economic support, subsistence is also a cultural and social focus for local residents. Land and resource uses are directly tied to cultural history, spiritual beliefs, sharing patterns, status, territoriality, and value systems. The participation in and identification with a subsistence lifestyle are unifying forces in the local culture, contributing greatly to the viability of the culture as a whole.

There is extensive subsistence use in the preserve by residents of Shishmaref, with selected areas being used by the residents of Kotzebue, Deering, Wales, and Nome. Residents from Kotzebue and Deering use the Cape Espenberg area, and those from Deering use the Goodhope Bay coast as well. The people from Wales use the westernmost areas of the preserve, along the Ikpek and Arctic lagoons, plus some inland areas. Subsistence users from Nome extend into the preserve along the Kuzitrin River and into the Serpentine Hot Springs valley. The Cape Espenberg area and the coast southward to the Nugnugaluktuk River has been

proposed as a special use area in the draft plan for the NANA Coastal Resource Service Area Board. This area is especially important for subsistence uses of birds and marine mammals (hunting and egg gathering).

More detailed subsistence resource use information is available in the draft plans for the Bering Straits and NANA coastal resource service areas and the Northern Seward Peninsula Resource Use Study: Shishmaref (ADF&G 1984c).

REINDEER GRAZING

Reindeer (same species as caribou) range throughout the preserve, as indicated on the Reindeer Range map. Section 201(2) of ANILCA allows that reindeer grazing, including necessary facilities and equipment, will continue within the preserve subject to reasonable regulations and in accordance with sound range management practices. Reindeer husbandry includes herding, protection from predators, corralling (or handling), antler removal, slaughtering, preparation, and transporting to market.

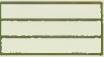
The reindeer industry has experienced fluctuations since its introduction in the area by the federal government in 1891. As the first government economic development program in Alaska, it was envisioned as having the potential to provide the natives with a more dependable source of food than the traditional resources--marine mammals, caribou, and other small game animals.

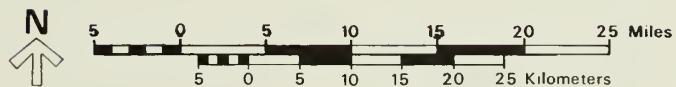
The 12 herds now on the Seward Peninsula are owned and managed by local residents and native corporations. By law, only natives can own and herd reindeer in Alaska. According to the Bureau of Indian Affairs, approximately 17,000 of the 24,000 reindeer in Alaska are found on the Seward Peninsula. (There were 20,000 animals on the peninsula in 1980.)

In 1977, the value of sales from all reindeer products on the Seward Peninsula was \$373,053 (Stern et al. 1980). Of this amount 54 percent was from meat sales and 46 percent from antler sales. The principal villages to which the economic benefits accrue are Teller, Deering, Shishmaref, and Wales, as well as the city of Nome. Most of the meat and hides are used locally, but a small portion is exported out of the region. The antlers are exported to markets in Asia.

The total reindeer population on the Seward Peninsula has been declining over the past three years. One reason for this is the encroachment of the western arctic caribou herd, which is moving westward onto the peninsula. It is estimated that the NANA herd has lost some 7,000 to 8,000 animals to the caribou herds. Reindeer are so closely related to caribou that reindeer will leave their ranges to follow the migratory caribou. The caribou herd has increased in size from approximately 75,000 animals in 1976 to some 200,000 animals at the present time, an annual increase of 10 to 14 percent. As the herd continues to grow, it could move farther westward onto the peninsula, including the preserve. Historical use of the Seward Peninsula by caribou and current year-round use by reindeer demonstrate the ability of the range to support caribou (ADF&G 1984e).



-  GRAZING PERMIT AREA
-  WINTER RANGE (INCLUDING POTENTIAL RANGE)
-  FAWNING AREA
-  CORRAL/HANDLING FACILITY
-  WESTERN EXTENT OF CARIBOU MIGRATION



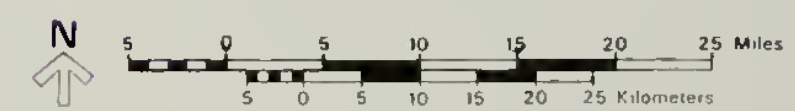
REINDEER RANGE

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- GRAZING PERMIT AREA
- WINTER RANGE (INCLUDING POTENTIAL RANGE)
- FAWNING AREA
- CORRAL/HANDLING FACILITY
- WESTERN EXTENT OF CARIBOU MIGRATION



REINDEER RANGE
 BERING LAND BRIDGE NATIONAL PRESERVE
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Table 4 presents data on herd ownership within and adjoining the preserve. The Reindeer Range map shows the locations of the permit areas in relation to the preserve.

Table 4: Reindeer Herders Operating Within
or Adjacent to Bering Land Bridge National Preserve

<u>Permit Holder</u>	<u>Permitted Herd Size</u>	<u>1984 Herd Size</u>
Goodhope (Shishmaref)	2,000	947
Karmun (Deering)	2,500	2,207
NANA Regional Corporation (Kotzebue)	13,000	4,696
Ongtawasruk (Wales)	1,000	1,334
Tocktoo (Brevig Mission)	500	11
Weyiouanna (Shishmaref)	1,500	756

Source: Bureau of Indian Affairs, unpublished 1984
reindeer data.

RECREATIONAL USE

General

Currently, there is little recreational use of the preserve except for Serpentine Hot Springs. The preserve is far from any large population centers, and generally residents from Kotzebue and Nome use recreation resources that are closer to home and more readily accessible. Present use of the preserve is estimated to be 7,100 visitor days and 3,775 visits annually. These estimates reflect the fact that nearly 90 percent of the use in the preserve is related to subsistence and only 10 percent to recreation (see table 6: Existing and Projected Use). Furthermore, recreational activities are often combined with other activities, such as subsistence, making it difficult to estimate recreational use. Away from Serpentine Hot Springs visitors seek out very remote and unusual

recreational opportunities, such as making cross-country ski trips between Nome and Shishmaref or traversing the Continental Divide.

Most summer visitors to the region are on tours and generally go no farther than the attractions of Kotzebue and Nome. Some 10,000 people pass through these two communities each summer as part of organized tours. The preserve has no accommodations or visitor programs within or near the boundaries. Persons can charter aircraft to fly over the preserve and can land for sight-seeing, hiking, camping, and fishing. In winter snowmobilers and dogmushers travel in the preserve.

Serpentine Hot Springs

Serpentine Hot Springs is probably the most frequently visited site on the Seward Peninsula that is not accessible by road. People go to the hot springs year-round for a variety of reasons, including bathing, healing, spiritual revitalization, hunting, trapping, and hiking. The area has also been used as a fuel cache. The hot springs have the greatest use in summer when access is mostly by aircraft, and most people come from Nome and Kotzebue. During winter most visitors come by snowmachine from Shishmaref, although some come on aircraft with skis, depending on snow conditions.

The valley offers striking scenic views across the green tundra-covered valley to rounded, pinnacle-covered ridges. This is a stimulating contrast to what is sometimes considered as monotonous expanses of tundra on the Seward Peninsula.

Annual use levels are difficult to determine and vary considerably because of the weather. NPS visitor counts for July 1982, 1983, and 1984 show an average of 200 visitor-days for the month (a visitor-day is a visit by one person for one day). The typical pattern in summer is for one or two groups of two to five people to be at the hot springs on most weekends. Many groups come to the hot springs for only a few hours or overnight. Some groups stay three or four days. During winter, fewer people come, but they stay longer.

Users are characterized as family groups, researchers, miners, and those following native healing practices. Guides, sport hunters, subsistence users, bathers from local villages, and participants in the NANA region's traditional medicine program visit the springs throughout the year. The native healing groups are sponsored by Maniilaq, Division of Traditional Medicine. Maniilaq will generally sponsor two, one-week sessions per year, with 10 to 15 patients and two or three native doctors.

In the past some groups have traveled to the hot springs by all-terrain vehicles (ATVs), three-wheelers, and four-wheel-drive vehicles. The road to Serpentine from Macklin Creek and Taylor can be impassable much of the year because of wet conditions. A few groups walk into Serpentine from the Taylor area, and several hikers and cross-country skiers have made their way to Serpentine.

The Serpentine Hot Springs area will probably become more popular. Factors contributing to increasing demand are steady growth in the state population, an expanding tourist industry, an increase in guide operations and sporthunting in the area, and the relative ease of access compared with the rest of the preserve. This is the only place in the preserve where good access is combined with a public use cabin.

HUNTING

Section 1313 of ANILCA provides that the taking of fish and wildlife for sport purposes and subsistence uses, as well as trapping, will be allowed in the national preserve. Most hunting now is for subsistence purposes, although some sporthunting of moose does take place. Both federal and state laws recognize subsistence use of wildlife resources and distinguish it from sporthunting. For purposes of resource allocations, the Alaska Board of Game has not found it necessary to make a distinction between subsistence and recreational hunting by residents of the Seward Peninsula. Regulations are currently broad enough to accommodate all uses. Therefore, all local harvest of game will be considered subsistence.

The greatest concentration of hunters, particularly for moose, is outside the preserve boundary. No commercial hunting guides are licensed by the National Park Service to operate within the preserve at the present time. Increases in hunting south and east of the preserve boundary could contribute to more hunting within the preserve, although the remoteness of the preserve, limited access, and the cost and difficulty of hauling out kills will discourage some hunters. If guided hunting operations were developed, hunting within the preserve could increase, assuming moose populations grew substantially and guides developed attractive operations. A musk-ox season may also be established on the Seward Peninsula in the future.

COMMERCIAL SERVICES

Commercial services that are now authorized to operate within the preserve are limited to two sportfishing guides and four air-taxi operators. None of these operators has reported any use of the preserve itself.

The nearest lodging and food services are at Nome and Kotzebue. During the summer tour groups book most of the hotel space in these cities. There are no public accommodations in the villages close to the preserve. Some food, clothing, and equipment can be purchased in Nome and Kotzebue. Otherwise visitors to the preserve must plan to be self-sufficient for the length of their stay.

As visitor use of the preserve grows, interest in providing commercial services, especially for guided trips and chartered flights, will probably also increase. Commercial services will likely remain based out of Nome and Kotzebue until operations can be established at locations closer to the preserve.

EXISTING DEVELOPMENT

There is little evidence of development in the preserve. Structures or cabins are primarily for temporary use. Summer camps are used as bases for subsistence activities, and they are mostly located on lands that have been applied for as native allotments. Summer camps are concentrated at Espenberg as well as along the banks of the lower Serpentine River.

Some cabins in the preserve are used as bases for reindeer herding, and there are a few corrals used in the handling and processing of reindeer. Three cabins in the preserve are used as public winter shelter cabins, and they are authorized by a special use permit and maintained by people from the villages. A public use cabin and a small bathhouse are also located at Serpentine Hot Springs.

Former mining cabins on Esperanza Creek near the winter trail from Deering to the Taylor Highway and at Cottonwood are in poor condition. Other evidence of past mining activity is the Fairhaven Ditch. Associated with the ditch are the ruins of three cabins that were used to help maintain the ditch. Also within the preserve, adjacent to Lava Lake, are the remnants of a military weather station that operated in the 1940s.

Existing facilities at Serpentine Hot Springs include a 1,100-foot airstrip (50 feet wide), a 20- by 54-foot cabin, a 15-square-foot bathhouse, and an outhouse. The airstrip is typical of most bush airstrips in the area. There is a slight slope to the strip, crosswinds are common, and during wet seasons the surface can be muddy. The general character of the structures is typical of bush cabins in Alaska.

The main cabin at the hot springs is divided into three rooms, a central storage area and two rooms, with a total of 10 bunks. Reindeer skins serve as mattresses on most of the bunks. Kitchen utensils, tools, and two wood stoves are available.

The bathhouse was constructed in 1978 as part of a \$25,000 grant from the state to the village of Shishmaref to make improvements. In addition to the bathhouse, an 8-foot by 10-foot redwood tub was installed, a covered walkway was built between the bathhouse and the main cabin, and repairs were made to the roof and interior walls of the main cabin.

The plywood bathhouse provides shelter for bathers. The Park Service constructed the present outhouse in 1982.

NPS OPERATIONS

The existing NPS operations headquarters for the national preserve is in Nome. Facilities include staff office space and a reception desk, three quarters, and a maintenance garage. There are no NPS facilities in the preserve.



**PROPOSED
GENERAL MANAGEMENT PLAN
AND ENVIRONMENTAL ASSESSMENT**

OVERVIEW OF THE PROPOSAL AND ALTERNATIVES

Three alternative management strategies have been considered for Bering Land Bridge National Preserve--the proposed plan and alternatives A and B. Under the proposal--the preferred management alternative--existing demands would be accommodated, and there would be a moderate increase in use (see the General Development and Visitor Use map for the proposal). Minimal facilities would be developed, and cooperative programs for interpretation and research would be emphasized. Under Alternative A existing policies would be continued, with the National Park Service responding to future needs and problems without major actions or changes in course. Under alternative B use would be increased by improving access to the preserve, providing additional facilities, and increasing staffing. The proposal and alternatives are summarized in table 5.

Table 5: Summary of Proposal and Alternatives

	Proposal	Alternative A	Alternative B
Overall Philosophy	Minimum action	Continuation of existing policies	Increased use and development
Natural Resource Management	Conduct broad-based research program and monitoring	Monitor uses; conduct specific studies as needed	Conduct studies related to increasing consumptive uses; restore altered sites to natural conditions
Cultural Resource Management	Survey, evaluate, and stabilize significant resources; monitor conditions	Same as proposal	Collect research data through the excavation of archeological sites
General Use	Provide access information; continue access as allowed by ANILCA and federal regulations; provide no new roads or airstrips	Same as proposal	Facilitate access; improve aircraft access
Access and circulation			
Subsistence use	Cooperate with managing agencies; monitor conditions; prepare subsistence management plan	Same as proposal	Same as proposal
Reindeer management	Prepare range management plans; adjust use levels to range management plan	Allow increases up to existing permit levels	Allow use levels to increase until adverse impacts were identified
Recreational activities	Continue existing activities	Same as proposal	Facilitate recreational activities
Information and interpretation	Cooperate with various groups in Nome to provide information and interpretive programs	Same as proposal	Same as proposal
Operations			
Headquarters	Maintain in Nome	Same as proposal	Same as proposal
District ranger stations	Establish ranger stations in Shishmaref and Deering	None	Establish ranger stations in Shishmaref, Deering, and Serpentine Hot Springs
Staffing	Eight permanent and nine seasonal positions	Five permanent and six seasonal positions	10 permanent and 10 seasonal positions
Park housing	Four to six units	Three units	Five to seven units
Cooperative programs	Establish cooperative programs for information and interpretation; education, research, training; law enforcement and search and rescue; exhibits; cultural assistance	Same as proposal but less NPS involvement	Same as proposal, plus cooperatively develop the Noxapaga landing area
General Development			
Visitor facilities (except Serpentine Hot Springs)	None	None	Provide three new public use cabins at various locations in the preserve
Serpentine Hot Springs	Maintain existing facility; replace structures if necessary; construct administrative cabin	Same as proposal	Construct three new cabins with expanded capacity; improve airstrip

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|---|--|
| 1 KOTZEBUE
Information/Orientation | 7 GOODHOPE BAY
Boating |
| 2 SHISHMAREF
Information/Orientation
District Ranger Station | 8 DEERING
Information/Orientation
District Ranger Station |
| 3 COAST AND LAGOONS
Beach Walks
Bird-watching | 9 ASSES EARS MOUNTAIN
Cross-country Hiking |
| 4 DEVIL MOUNTAIN
Cross-country Hiking
Maar Lake Exploration | 10 LAVA/KUZITRIN/
IMURUK/CLOUD LAKES
Cross-country Hiking
Lava Exploration |
| 5 SERPENTINE HOT SPRINGS
*Bathing Activities and Hiking
*Main Cabin and Bathhouse
*Airstrip | 11 NOME
*Preserve Headquarters
Information/Orientation
Interpretation
Cooperative Museum Activities
* Maintenance
Staff Housing |
| 6 NUGNUGALUKTUK /
GOODHOPE RIVERS
Bird-watching
Exploration | |

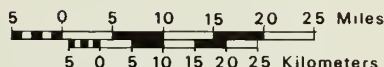
* EXISTING FACILITY OR ACTIVITY

----- WINTER TRAIL

† PUBLIC AIRSTRIP

⊕ PRIVATE AIRSTRIP

⊕ EMERGENCY AIRSTRIP (unverified)



PROPOSAL GENERAL DEVELOPMENT AND VISITOR USE

BERING LAND BRIDGE NATIONAL PRESERVE

United States Department of the Interior/National Park Service

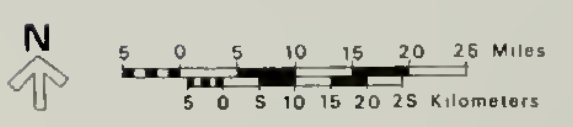
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|---|---|
| 1 KOTZEBUE
Information/Orientation | 7 GOODHOPE BAY
Boating |
| 2 SHISHMAREF
Information/Orientation
District Ranger Station | 8 DEERING
Information/Orientation
District Ranger Station |
| 3 COAST AND LAGOONS
Beach Walks
Bird-watching | 9 ASSES EARS MOUNTAIN
Cross-country Hiking |
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Cross-country Hiking
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Bird-watching
Exploration | |

* EXISTING FACILITY OR ACTIVITY

- WINTER TRAIL
- † PUBLIC AIRSTRIP
- ⊕ PRIVATE AIRSTRIP
- ⊕ EMERGENCY AIRSTRIP (unverified)



PROPOSAL
**GENERAL DEVELOPMENT
AND VISITOR USE**
BERING LAND BRIDGE NATIONAL PRESERVE
United States Department of the Interior/National Park Service
DSC / MARCH 1985 / 12B-20,008 A

THE PROPOSAL

The proposal is the minimum action alternative to meet the legislative mandates to protect natural and cultural resources, to continue subsistence uses and reindeer herding, and to provide information, interpretation, and recreational opportunities. Bering Land Bridge National Preserve will be managed in the same manner as a national park except that the taking of fish and wildlife for both sport purposes and subsistence uses, as well as trapping, will be allowed under applicable state and federal laws and regulations (ANILCA, sec. 1313).

RESOURCE MANAGEMENT

Research Requirements

Overview. One of the initial steps in managing and protecting the resources of Bering Land Bridge National Preserve will be to develop, through research, a comprehensive and usable base of information to help managers identify resource threats and resolve problems. A separate resource management plan is now being prepared and will be made available for public comment. This plan will identify specific problems, consider alternative solutions, and propose research projects or resource management actions. It will also identify requirements for preservation and care of materials collected as a result of research projects. As a working document, the resource management plan will be revised as problems are solved or new ones arise. The plan itself will be implemented as an annual program that sets priorities, selects funding sources, and identifies the best means of carrying out the resource management program.

Research as well as actual management activities will be coordinated with other federal and state agencies and with recognized public or private educational and scientific institutions. Of particular use in cooperative activities will be the existing master memorandum of understanding with the Alaska Department of Fish and Game (appendix C). Regionally based NPS natural and cultural resource staff will assist local preserve staff in identifying research needs, conducting or contracting for research, and translating research results into management actions.

The Significance of the Land Bridge. The existence of the national preserve provides an opportunity to seek a better understanding of the spread of humans and other life-forms from Asia to North America. Much research remains to be done on the significance of the land bridge, particularly as it relates to the cultural, geographic, and climatic history, along with the biological evolution, of northern North America. The research should be international in scope and include studies of ancient climatic regimes, sea levels, plant and animal distribution, and evidence of human activities. Such information should be gathered from all available sources, including work done in the preserve itself, elsewhere on the Seward Peninsula, and on the Chukotsk Peninsula in the Soviet Union.

The National Park Service will act as a catalyst for research efforts by encouraging international and interdisciplinary research proposals and by ensuring wide distribution of research results. NPS staff will participate in national and international meetings about the significance of the land bridge.

Through appropriate diplomatic channels, contacts will be opened and maintained with the USSR to facilitate the flow of new information about the land bridge. This international cooperation will not only broaden scientific knowledge of the area's significance, it will also provide important information for the preserve's interpretive programs.

Natural Resource Management

Fish and Wildlife Management. In a manner consistent with ANILCA and in cooperation with the National Park Service, the state of Alaska may establish fishing, hunting, and trapping regulations to maintain healthy fish and wildlife populations within the national preserve.

Consistent with the purposes of the preserve, the Alaska Boards of Fisheries and Game may determine policies for fishing and hunting licenses, and they set bag limits for both sport and subsistence uses. The master memorandum of understanding between the National Park Service and the Alaska Department of Fish and Game calls for timely consultation and coordination of resource planning and management by these two agencies (see appendix C).

ANILCA requires the preserve to be administered by the secretary of the interior for a wide variety of purposes, including the protection of healthy fish and wildlife populations and habitats. When the taking of fish and game conflicts with other established purposes of the preserve, the Park Service may promulgate regulations concerning consumptive uses and management of resources that are more restrictive than the laws and regulations of the state (*Kleppe v. New Mexico*, 426 U.S. 529 [1976]). During congressional hearings before the passage of ANILCA, the following policy statement was made:

It is contrary to the National Park Service concept to manipulate habitat or populations to achieve maximum utilization of natural resources. Rather, the National Park System concept requires implementation of management policies which strive to maintain the natural abundance, behavior, diversity and ecological integrity of native animals as part of their ecosystem, and that concept should be maintained. . . .

It is expected that the National Park Service will take appropriate steps when necessary to insure that consumptive uses of fish and wildlife populations within National Park Service units not be allowed to adversely disrupt the natural balance which has been maintained for thousands of years. Accordingly, the National Park Service will not engage in habitat manipulation or control of other species for the purpose of maintaining subsistence uses within the National Park System units (Congressional Record, Aug. 18, 1980, S 11135-36).

Unusual circumstances are addressed in the master memorandum of understanding with the Alaska Department of Fish and Game (see appendix C). Item 5 of that agreement allows the manipulation of habitat or animal populations only under extraordinary circumstances when consistent with applicable law and NPS policy.

ADF&G resource management recommendations for the preserve include guidelines for establishing species-specific wildlife management plans. Both the state and the Park Service recognize that these guidelines were originally developed for broad geographic regions, and that management objectives for the preserve may be different than those for the region as a whole. ANILCA 1313 as well as the master memorandum of understanding indicate that the Park Service will develop its management plans in substantial agreement with state plans unless state plans are incompatible with the purposes for which the national preserve was established. The Park Service has the obligation and responsibility under section 1313 of ANILCA and other federal laws to make modifications "for reasons of public safety, administration, floral and faunal protection." Any resulting changes will be discussed with the state.

Survey and sampling data about existing wildlife and fish populations, and estimates of actual harvest from the immediate area, are lacking. The resource management plan will emphasize the research and survey work needed to document this information. Population and harvest data will also help ensure that state regulations are compatible with preserve objectives.

The highest priorities in fish and wildlife management over the next five to 10 years will be as follows:

- determining effects of reindeer grazing on vegetation and understanding reindeer and wildlife interaction

- cooperatively studying the relationship of populations of moose, bears, wolves, and musk-oxen inside the preserve with those populations on lands outside

- obtaining reliable estimates of the annual harvest of wildlife by various preserve users (i.e., local subsistence and sport hunters and trappers)

- studying the distribution and abundance of small mammals, raptors, and fishes, and their relationships to the preserve's ecosystems

- establishing reliable monitoring techniques for waterfowl

Vegetation and Fires. Understanding the distribution, seasonal availability, and productivity of vegetation is critical to ensuring the perpetuation of the preserve's natural systems. Uses of vegetation by grazing animals (both natural and introduced) must also be understood and monitored.

This understanding of vegetation and the impacts of the primary consumers (domestic reindeer, moose, musk-oxen, and some of the smaller

mammals) is essential because the continuation of domestic reindeer herding, as well as the hunting of moose and other game animals for subsistence and sport, is legislatively mandated. Continuation of these uses is by law contingent on the long-term ecological health of the preserve. Any degradation of vegetation (for example, of lichen beds on reindeer winter range or of willow shrubs by browsing moose) may be the first indication that these grazing animals are out of balance with their food supply and that some management actions must be considered.

Decisions about fish and wildlife management actions are likely to be controversial, so the research and monitoring on which they are based must be scientifically sound and acceptable to all parties concerned. Close coordination with subsistence users, native corporations, the Alaska Department of Fish and Game, the Reindeer Herders Association, the Soil Conservation Service, and other federal agencies will be maintained to achieve this acceptance.

Fire plays an important part in natural vegetation management through periodic removal of certain types of vegetation, recycling of nutrients, and returning areas to earlier stages of succession. The National Park Service has participated in the preparation of the Alaska Interagency Fire Management Plan and has designated appropriate fire suppression categories for the preserve (see Fire Management Areas map). Existing categories will be reevaluated as new information becomes available.

Most of the preserve is in the limited-action fire management category. In these areas fires will be allowed to burn unimpeded, provided that there is no threat to private property or to adjoining areas within a higher fire suppression category. Other portions of the preserve are in the modified-action fire management category, which means that attempts will be made to contain all fires by using aggressive initial attack. If a fire escapes the initial attack effort, the superintendent will work with the BLM Alaska Fire Service to decide what strategy to follow. After a predetermined period, fires in modified-action areas will be treated as fires in limited-action areas, and no further action will be taken. (Reindeer winter ranges are included in the modified-action category.) Fires in full-protection areas will be controlled through immediate and aggressive action to limit fires to the smallest acreage possible.

The Park Service will conduct fire management and vegetation studies to review and refine the current fire management policies.

Navigable Waters. The Submerged Lands Act of 1953 and the Alaska Statehood Act of 1958 provide for state ownership of the beds of navigable waters to the "ordinary high water mark." Determination of what waters are navigable is an ongoing process in Alaska at both the administrative and judicial levels.

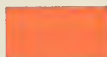
The National Park Service has concerns relating to public use and resource protection of all waters within the preserve. The Park Service will oppose any actions that will permanently alter the beds of navigable or privately owned waters or result in activities that will adversely affect water quality or the abundance and diversity of fish and wildlife species.

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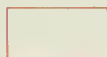
CRITICAL PROTECTION AREA



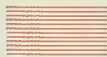
FULL PROTECTION AREA



MODIFIED-ACTION AREA



LIMITED-ACTION AREA



AREA WHERE NO COMMENT RECEIVED
OR UNPLANNED

SOURCE: ALASKA INTERAGENCY FIRE MANAGEMENT COUNCIL 1984



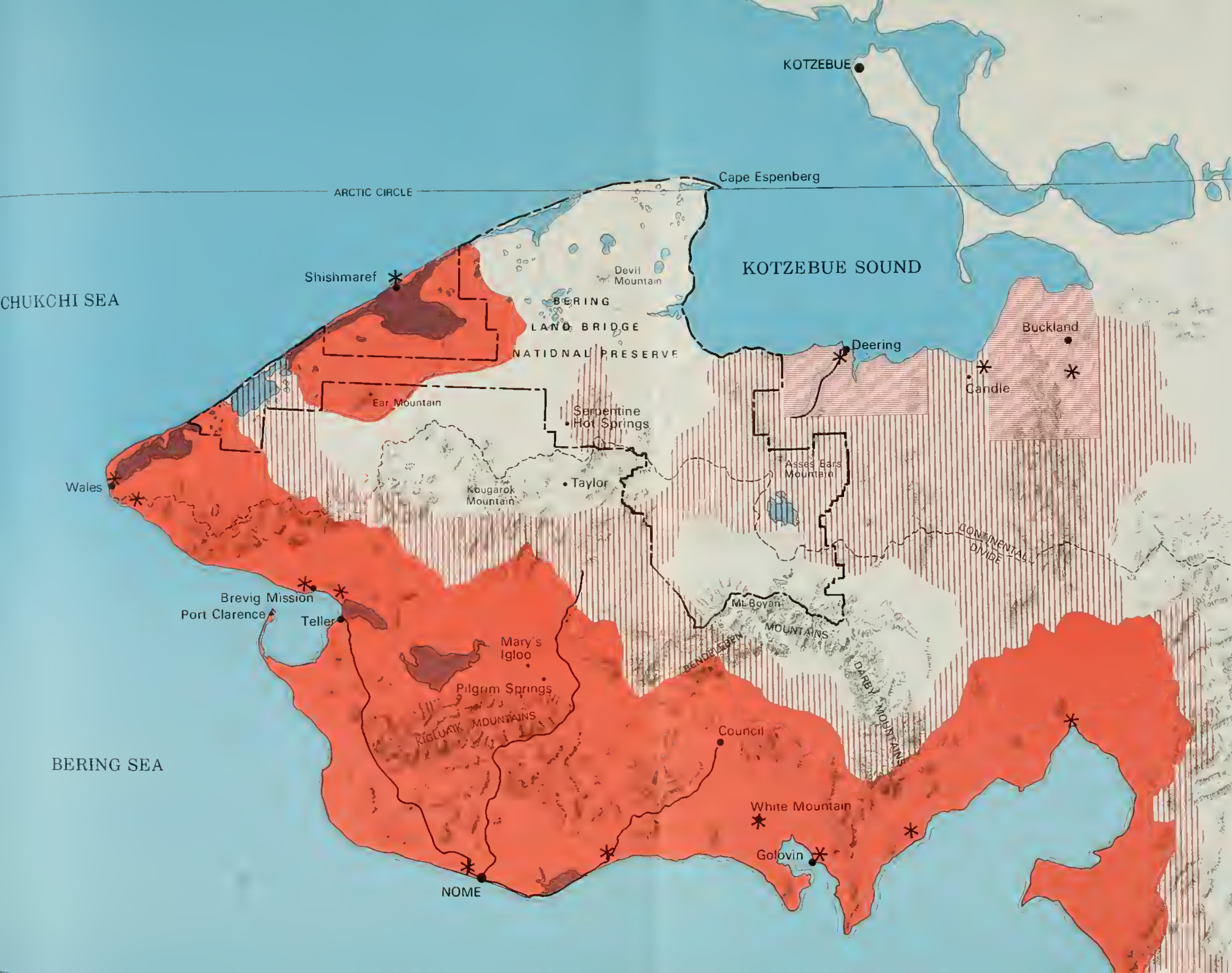
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FIRE MANAGEMENT AREAS

BERING LAND BRIDGE NATIONAL PRESERVE

United States Department of the Interior/National Park Service

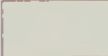
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* CRITICAL PROTECTION AREA

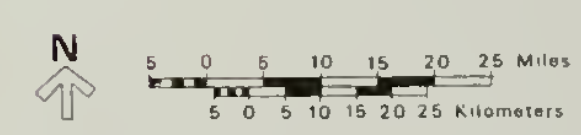
 FULL PROTECTION AREA

 MODIFIED-ACTION AREA

 LIMITED-ACTION AREA

 AREA WHERE NO COMMENT RECEIVED OR UNPLANNED

SOURCE: ALASKA INTERAGENCY FIRE MANAGEMENT COUNCIL 1984



FIRE MANAGEMENT AREAS

BERING LAND BRIDGE NATIONAL PRESERVE

United States Department of the Interior/National Park Service

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Other concerns relate to leasing activities or the introduction of floating or other structures in such waters.

The National Park Service will work cooperatively with the state of Alaska to minimize the effects of any proposed state actions that may affect navigable waters within the preserve.

Water Rights. The National Park Service currently recognizes that no problems exist with regard to water rights within the preserve. It does, however, recognize that in many other national parks in the lower 48 states and already in Alaska there are issues that revolve around the protection of fish and wildlife resources, recreation, and the continued opportunity for subsistence uses that are directly related to water rights. The National Park Service will seek additional legal protection of water rights in the preserve by requesting water rights through the state of Alaska's in-stream flow procedure, as allowed for by Alaska Statute 46.15.030. Reservation may be made of in-stream flow for the protection of fish and wildlife habitat, migration and propagation, recreation and navigation, and sanitary and water quality purposes.

Minerals. Public land within the preserve is closed to new mineral entries. Unpatented mining claims will be subject to NPS regulations governing mining operations (36 CFR 9A and 13-15). Plans of operations will be reviewed by federal and state agencies to ensure that mining operations comply with state and federal regulations and that adverse effects on resources and other uses are minimized.

Naming of Natural Features. Numerous natural features within Bering Land Bridge National Preserve (including creeks, mountain peaks, ridgelines, valleys, lowlands, and other local features) are not currently named on U.S. Geological Survey (USGS) topographic maps. The National Park Service will generally discourage the naming of such unnamed features. However, in any future mapping for NPS internal purposes, such features will bear only the traditional and native names ascribed to them. The Park Service will utilize local native expertise to research and develop a base map that uses the traditional native names of prominent or important topographic features within the preserve. The Park Service will recommend to the USGS National Cartographic Information Center that these traditional names be used when a feature is named.

Threatened or Endangered Species. There are currently no federally listed threatened or endangered species of plants or animals within the preserve. The Park Service will cooperate with the U.S. Fish and Wildlife Service in its continuing efforts to evaluate the status and distribution of rare plants and animals. The Park Service will follow the required procedures if any species, such as the candidate plants, are officially listed.

Air and Water Quality. The preserve will continue to be classified as a class II airshed, under the provisions of the Clean Air Act amendments (42 USC 7401 et seq.). No monitoring of air quality on a regular basis is currently done within or adjacent to the preserve. The superintendent may request the U.S. Environmental Protection Agency or the Alaska

Department of Environmental Conservation to undertake a monitoring program to provide baseline data for future comparisons.

Maintaining water quality within the preserve will be carried out in a manner consistent with and under the regulatory programs of the Alaska Department of Environmental Conservation and the Environmental Protection Agency. The Department of Environmental Conservation will be consulted before any future NPS development occurs, including water facilities, within the preserve. The National Park Service, the Environmental Protection Agency, and the Alaska Department of Environmental Conservation will enforce air and water quality regulations on preserve lands.

The resource management plan will address procedures for conducting air and water baseline studies.

National Natural Landmarks Program. In 1962 the secretary of the interior established the national natural landmark program as a natural area survey to identify and encourage the preservation of features that best illustrate the natural landmarks of the United States. Six potential landmark sites have been identified within the preserve (Young, Walters, and Hagenstein 1982). These are Devil Mountain Lakes, Killeak Lakes, Kougachuk Creek, Imuruk Lake, Cape Prince of Wales and Lopp Lagoon, and Sullivan Bluffs/Cape Deceit. All natural landmarks will be managed to protect those features contributing to their national significance.

Cultural Resource Management

Section 201 of ANILCA recognizes the prehistory of the area as one of the primary values of Bering Land Bridge National Preserve. At present 85 prehistoric and historic sites have been identified within the preserve. These sites range from one that is more than 10,000 years old, to sites of the historic period, to modern sites relevant to native American and Euro-American research themes. Evidence at Trail Creek caves suggests occupation before bison became extinct more than 10,000 years ago, making it one of the oldest known sites in Alaska.

The Park Service will monitor all potential and known cultural resource sites to ensure their protection. All proposals that have the potential to affect cultural resources in the preserve will be evaluated, and measures will be undertaken to protect these values.

Identification of Cultural Resources. The research, recording, and evaluation of known sites is incomplete. Archeological investigations have been conducted in limited geographic locations and using only a few research themes. Although the area's history themes have been identified, few sites associated with historic events have been identified or located.

The National Park Service has already programmed funds to inventory, survey, and evaluate cultural resources within the preserve. Inventories will be conducted over a three-year period, beginning in summer 1985. Archeologists, historical architects, historians, and perhaps cultural

anthropologists will locate, examine, and document sites, structures, and areas for which little or no data exist. Materials collected from the sites will be studied, cataloged, and cared for as part of the inventory projects. Survey work will be coordinated with native organizations, universities, and federal and state agencies.

Until survey and evaluation work has been completed and the significance of sites has been determined, the primary management goal will be to protect all sites. This means that actions related to natural resource protection, or to any development activities in the preserve, will be designed to have minimal adverse effects on historic and archeological resources.

As the cultural research and survey work is completed, reports will be prepared to document the findings, and priorities will be assigned where protective actions are needed. Also management techniques will be recommended for cultural resource preservation. From these reports, a list of classified structures (LCS) and a cultural sites inventory (CSI) will be prepared. Potential LCS and CSI sites will be evaluated for adaptive and interpretive uses. Those properties under NPS jurisdiction that meet the criteria for listing on the National Register of Historic Places will be nominated to the register. All properties will be protected and interpreted as mandated by federal preservation laws and NPS policies.

Native Selections. The NANA and the Bering Straits regional corporations, pursuant to ANCSA, section 14(h)(1), have selected 48 sites within the preserve that contain existing cemeteries and places of historical and cultural significance. These selections will be investigated for validity by the Bureau of Indian Affairs and adjudicated by the Bureau of Land Management.

Until the native land selections have been adjudicated, the National Park Service will protect, preserve, and manage all identified sites as though they were eligible for inclusion on the National Register of Historic Places. Those sites that are not conveyed will be treated as if they were eligible for inclusion on the National Register until they can be properly evaluated and nominated, as appropriate. The Park Service will provide both the Bering Straits and the NANA regional corporations with technical advice about maintaining and preserving cultural properties conveyed under the provisions of ANCSA.

Private Lands. In some instances, significant cultural sites within preserve boundaries will not be under the ownership or jurisdiction of the Park Service. In these cases the Park Service will encourage the owners to nominate eligible sites to the National Register and will, upon request, provide technical assistance and advice in the proper care and treatment of such properties.

Unlawful or Nonscientific Excavations. Nonscientific excavating, or pothunting, has occurred on the Seward Peninsula and is known to have occurred within the preserve. Many of the archeological sites in the preserve are in extremely remote locations and probably not in danger of

unauthorized excavation. Any pothunting in the preserve is in violation of the Archeological Resources Protection Act of 1979, and violators will be prosecuted.

Educational Programs. The Park Service will cooperate with native groups to develop multidisciplinary public educational programs to tell residents and visitors about the value of information that can be gained through scientific excavations. Such programs could include presentations to high school archeology classes, exhibits and workshops, and the interpretation of artifacts and excavations to local people.

Disposition of Artifacts. The Park Service will continue efforts to locate, identify, inventory, and evaluate artifacts that were removed from the preserve before NPS ownership. Some of these artifacts were excavated in the 1930s and are now exhibited and stored in museums outside Alaska and in some instances outside the United States. The Park Service is working toward the return of these collections if they are no longer of use to the present repository.

Artifact collections owned by the Park Service require proper cataloging, conservation, and storage. NPS cultural resource staff will make arrangements for artifacts excavated or found on NPS lands in Alaska to be stored at the University of Alaska Museum, Fairbanks. The university museum is the major research repository in the state of Alaska, and it meets accredited museum standards.

While some artifacts will require the care that only a fully accredited museum can provide, other collections may be suitable for interpretation or exhibit. The Park Service will explore the feasibility of exhibiting and storing artifacts locally in other approved museum facilities and also of loaning artifacts to local groups for educational or interpretive purposes. A more detailed discussion of both natural and cultural collections is contained in the preserve's "Scope of Collections Statement."

GENERAL USE

Existing and projected use levels for the preserve and for administrative sites outside the preserve are estimated in table 6.

Access and Circulation

Existing traditional methods and patterns of access and circulation within Bering Land Bridge National Preserve will continue, subject to applicable laws and regulations (see tables 7 and 8). The Park Service will provide information on the various ways to get to the preserve, and it will work with private companies or guides to facilitate access and travel in the preserve.

Two existing airstrips, various floatplane landing areas, and landing areas on beaches and gravel bars will continue as they are. No NPS maintenance or improvements of these or any other landing areas will be conducted. Use of winter trails by snowmachines during periods of

Table 6: Existing and Projected Uses

Use within the Preserve	Estimated Present Use			1995 Projected Use		
	Visits	Visitor Days	Percentage of Total Visits	Visits	Visitor Days	Percentage of Total Visits
Recreation Visitors (nonresidents)						
Backcountry use (general)	10	50	<1	400	1,600	4
Serpentine Hot Springs	370	740	10	1,000	2,000	11
Guided trips	--	--		500	2,500	5
Subtotal	380	790	10	1,900	6,100	20
Nonrecreation Visitors (residents)						
Subsistence users						
Trips to allotments	2,250	4,500	66	6,400	12,800	68
Trips between villages	250	500	7	700	1,400	7
Other	500	1,000	15	400	2,800	4
Mining	5	15	<1	10	300	<1
Research	10	300	<1	20	400	<1
Subtotal	3,015	6,315	88	7,530	17,700	79
Total	3,395	7,105		9,430	23,800	
Use outside the Preserve						
Interpretation and Information Contacts						
Nome*	380	75		7,500	500	
Shishmaref	--	--		100	300	
Deering	--	--		100	300	
Total	380	75		7,700	1,100	

Note: It is only possible to give an indication of existing and future use. There are no accurate sampling programs to determine the extent and distribution of current use. These statistics are based on the best judgment of NPS professionals.

* These are estimates of direct contacts with NPS staff.

adequate snow cover also will continue, including the route from Deering to the Taylor Highway. These winter trails may continue to be marked, using state funds through contracts with nearby villages.

Traditional methods of access will be allowed to continue for subsistence purposes. Reasonable means of access to inholdings, such as native allotments or mining claims, will also be allowed. Such access will be

Table 7: Summary of
General Access Provisions for Subsistence
and Recreational Activities

<u>Mode of Access</u>	<u>Allowed for Subsistence/ Reference</u>	<u>Allowed for Recreation/ Reference</u>	<u>Proposed Change</u>
Snowmachines	Yes* ANILCA 811 36 CFR 13.10 13.46	Yes* ANILCA 1110 36 CFR 13.10	None
Off-Road Vehicles	No ANILCA 811 36 CFR 13.14, 13.46	No ANILCA 101 36 CFR 13.14	None
Motorboats	Yes* ANILCA 811 36 CFR 13.11, 13.46	Yes* ANILCA 1110 36 CFR 13.11	None
Fixed-Wing Aircraft	No* ANILCA 811 36 CFR 13.13, 13.45	Yes* ANILCA 1110 36 CFR 13.13	
Helicopters	No** 36 CFR 13.13	No ANILCA 1110 36 CFR 13.13	None

* The superintendent may close an area or restrict an activity on an emergency, temporary, or permanent basis (36 CFR 13.30).

** The use of a helicopter in the preserve, other than at designated landing areas or pursuant to the terms and conditions of a permit issued by the superintendent, is prohibited (36 CFR 13.13(f)).

Table 8: Summary of Other Access Provisions

<u>Provision</u>	<u>Reference</u>	<u>Proposed Change</u>
<u>Access to Inholdings</u> (valid property or occupancy interest, including mining claims) Adequate and feasible access is ensured if it will not cause significant adverse impacts on natural or other values or jeopardize public health and safety; terms and conditions of permit are set by superintendent; active mines must also have approved plan of operations.	ANILCA 1110 36 CFR 13.15, 13.31	None
<u>Temporary Access</u> (applies to state and private landowners not covered in 36 CFR 13.10-15) Superintendent will permit temporary access across preserve for survey, geophysical, exploratory, or similar temporary activities on nonfederal lands when determined that such access will not result in permanent harm to preserve resources.	ANILCA 1111 36 CFR 13.16	None
<u>Transportation and Utility Systems</u> Procedures for application are set; approval must be compatible with purposes for which the unit was established and no economically feasible and prudent alternative route exists; terms and conditions of rights-of-way are also established.	ANILCA Title XI	None
<u>Alaska Revised Statute 2477</u> The Park Service is aware that the state might assert certain claims of rights-of-way under RS 2477. The Park Service intends to cooperate with the state (or any other claimant) in identifying these claims, the nature, extent, and validity of which may vary, depending on the circumstances under which they were acquired or asserted. Notwithstanding that certain RS 2477 rights-of-way exist, it will still be necessary for users of any rights-of-way to comply with applicable NPS permit requirements.	43 USC 932	None
<u>Navigational Aids and Other Facilities</u> Access is provided to existing air and water navigational aids, communication sites, and facilities for weather, climate, and fisheries research and monitoring, subject to reasonable regulation. Access is also provided to facilities for national defense purposes.	ANILCA 1310	None
<u>Alaska Department of Fish and Game</u> The National Park Service recognizes the right of the department to enter onto preserve lands after timely notification to conduct routine management activities that do not involve construction, disturbance to the land, or alterations of ecosystems.	NPS/ADF&G Memorandum of Understanding	None

<u>Provision</u>	<u>Reference</u>	<u>Proposed Change</u>
<u>Alaska Mineral Resource Assessment Program</u> Access by air is allowed for assessment activities permitted by ANILCA 1010, subject to regulations ensuring that such activities are carried out by the U.S. Geological Survey or their designated agents in an environmentally sound manner.	ANILCA 1010	None
<u>General Research</u> The superintendent may permit the use of helicopters for research activities and may prescribe terms and conditions in accordance with the regulations.	ANILCA 1110 36 CFR 13.13, 2.5	None
<u>Route from Deering to the Taylor Highway</u> The continuation of customary patterns and modes of travel during periods of adequate snow cover within a 100-foot right-of-way along either side of an existing route from Deering to the Taylor Highway is permitted subject to reasonable regulations.	ANILCA 201(2)	None
<u>Public and Native Access to Serpentine Hot Springs</u> Outdoor recreation and environmental education, including public access to the Serpentine Hot Springs area for recreational purposes, as well as native access for religious, spiritual, and healing activities, is permitted in a manner consistent with the purpose of the preserve.	ANILCA 201(2) American Indian Religious Freedom Act (42 USC 1996)	None
<u>Off-Road Vehicles for Reindeer Grazing</u> The use of off-road vehicles for purposes of reindeer grazing may be permitted in accordance with a permit issued by the superintendent.	ANILCA 201(2) 36 CFR 13.61	None

subject to regulations to protect the natural and cultural values of the preserve. In addition, temporary access will be permitted for the purposes of survey, geophysical, exploratory, or other temporary uses as long as such access will not result in permanent harm to the resources of the preserve.

No new roads will be allowed to be constructed in the preserve except as necessary for access to inholdings, temporary access, or access for subsistence activities. In addition ANILCA title XI provides for transportation and utility systems in and across, as well as access into, conservation system units. Although isolated cases of offroad vehicle use have occurred in the preserve, the use of offroad vehicles is prohibited except on routes or in areas designated by the superintendent for use as access to inholdings or for the purposes of survey, geophysical, exploratory, and other temporary uses (36 CFR 13.14-16). Helicopters may only land in designated landing areas unless otherwise authorized (36 CFR 13.13).

Aircraft use in the preserve will be monitored. Landings will be permitted where customary (see 36 CFR 13.13.). If demands for access to the preserve increase and the existing landing areas are not sufficient, the Park Service will study various new airstrip locations.

Subsistence Uses

Subsistence uses are defined by ANILCA as

the customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools, or transportation; for the making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption and for customary trade.

One of the purposes of ANILCA (sec. 101(c)) is "to provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so." In addition one of the specific purposes of Bering Land Bridge National Preserve is to protect the viability of subsistence resources. Section 203 of ANILCA specifically allows for subsistence uses by local residents in national preserves.

ANILCA states that it is the policy of Congress to cause the least adverse impact possible on rural residents who depend upon subsistence uses. A second policy is to give subsistence uses priority over all other consumptive uses, such as sport hunting, when it is necessary to restrict taking in order to ensure the continued viability of a fish or wildlife population.

Regulations to implement subsistence use policies and to clarify the provisions of ANILCA were prepared by the secretary of the interior (pursuant to ANILCA, sec. 814) and became effective June 17, 1981. These regulations (36 CFR 13) address numerous aspects of subsistence

management and uses within park system units in Alaska, including determination of which rural residents qualify to engage in subsistence activities in the park units, what means and methods of access may be used in conducting subsistence activities, what laws and regulations apply to the taking of fish and wildlife for subsistence purposes, and how and under what conditions subsistence uses may be temporarily reduced or terminated. Many of these regulations, such as the identification of rural residents, apply to national parks and monuments only, and not to national preserves. These regulations are considered interim regulations, and are subject to refinement and change as the requirements and management of subsistence uses in the park units are better understood (see appendix B for the complete regulations).

According to ANILCA, section 805(d), the secretary of the interior shall not implement portions of the act's subsistence provisions if the state enacts and implements subsistence preference laws that provide for the taking of fish and game on federal lands for subsistence purposes. These state laws must be consistent with the other applicable sections of ANILCA. The state did enact a law that meets these criteria, and the Alaska fish and game boards now have the primary responsibility for regulating subsistence uses.

The state fish and game boards set bag limits, methods of harvest, seasons of harvest, and other factors related to the use of fish and wildlife for subsistence purposes within Alaska, including park system units. Insofar as state laws and regulations are consistent with the provisions of ANILCA and the applicable federal regulations, the state will continue to manage the subsistence harvest of fish and wildlife within the park units (see 36 CFR 13.47-48).

To ensure local and regional participation in decisions that affect subsistence resources, six resource regions have been established in Alaska, each with its own regional advisory council. These regional advisory councils review and evaluate proposals and other matters relating to subsistence uses, and they also provide a forum for discussion and encouragement of local and regional participation. The regional subsistence advisory councils provide input to the Alaska fish and game boards.

The boards evaluate whether a use of resources is a subsistence use by applying the following eight criteria:

1. a long-term, consistent pattern of use
2. a use pattern recurring in specific seasons of each year
3. methods and means of harvest that are efficient and economical in terms of effort and cost
4. consistent use of local resources
5. use of traditional means of handling, preparing, preserving, and storing fish or game

6. a use pattern that includes the handing down of knowledge of fishing or hunting skills, values, and lore from generation to generation
7. a use pattern in which the hunting and fishing effort and products of that effort are shared among others in the community
8. a use pattern that includes reliance for subsistence purposes upon a wide diversity of resources and provides substantial economic, cultural, social, and nutritional elements of the lives of the subsistence users

Section 808 of ANILCA directs the secretary of the interior to appoint subsistence resource commissions for national parks and monuments in Alaska. Bering Land Bridge National Preserve does not have such a commission because of its designation as a national preserve.

One of the ways that the National Park Service will protect subsistence users is that traditional access to subsistence resources will be ensured (ANILCA, sec. 811). The Park Service also may permit the location of new cabins or other structures necessary for subsistence, if it is determined that the structures are necessary for subsistence uses. The primary factor to be considered is the compatibility of any proposed uses with the purposes for which the preserve was established. Other factors that will be considered are the relationship of proposed structures to traditional use patterns, the necessity of a proposed structure or type of structure in a particular location, and the consideration of other reasonable alternatives.

A subsistence use map for Bering Land Bridge has not been included at this time. The Alaska Department of Fish and Game and the NANA and Bering Straits coastal resource service area boards have prepared draft subsistence use maps which the Park Service will rely on in the meantime for defining areas where subsistence may occur.

The National Park Service will manage subsistence uses within the preserve in accordance with ANILCA and federal regulations. The Park Service will prepare a subsistence management plan for Bering Land Bridge to clarify the management of subsistence uses. This management plan will be developed in cooperation with all affected parties and will be available for public review and comment prior to its becoming an approved plan.

The subsistence management plan will include a detailed discussion of areas where subsistence activities occur, as well as subsistence harvests for fishing, hunting, and gathering. The plan will also address access for subsistence and subsistence shelters and cabins. Methods of detecting shortages of any species will be identified, and how priorities will be determined and enforced will be described.

Reindeer Grazing

Section 201(2) of ANILCA states in part that the preserve shall be managed

subject to such reasonable regulations as the Secretary may prescribe, [for continued] reindeer grazing use, including necessary facilities and equipment, within the areas which on January 1, 1976, were subject to reindeer grazing permits, in accordance with sound range management practices.

Within Bering Land Bridge National Preserve reindeer grazing will be allowed to continue as long as management of the range resource for reindeer is balanced with the other mandated management purposes. Consultation with the reindeer herders and other interested organizations and agencies (e.g., Reindeer Herders Association and Alaska Reindeer Committee) will continue to be integral to the range management program. However, as the congressionally designated land manager, the National Park Service must balance the management objectives for the reindeer industry with the other management objectives of the preserve.

Research has been done on reindeer by the Soil Conservation Service (U.S. Department of Agriculture), the Cooperative Extension Service, and the Agricultural Experiment Station (both University of Alaska), but several areas need to be further studied in order for the Park Service to adequately define what constitutes sound range management practices. As additional information becomes available, changes in policies and practices may be necessary. When considering changes to the existing management situation, the Park Service will consult with the herders, the Reindeer Herders Association, the Alaska Reindeer Committee, and other interested or affected organizations. The Park Service will also consider the unique circumstances of reindeer herding (e.g., reindeer are wide-ranging) when proposing changes in the range management program.

The reindeer management policies for the preserve will consist of the following:

Existing permitted herd levels will be maintained until range management plans for each permit area within the preserve are developed and approved by the National Park Service. Upon approval, increases in herd size will be allowed up to the limits allowed by the range management plan.

New range facilities will be located outside the preserve if possible or in the least environmentally sensitive area if they are in the preserve.

Sound range management will include maintenance of habitat for all species. No priority for the range resource will be given to either reindeer or caribou. The National Park Service will cooperate with the Alaska Department of Fish and Game and others in the monitoring and management of the western arctic caribou herd, including the minimizing of conflicts between reindeer and caribou. No predator control programs will be allowed within the preserve.

However, private property and hunting and trapping rights as allowed by federal and state regulations will continue to be protected.

The Park Service will cooperate with ongoing research activities of other agencies and will initiate research and monitoring activities to determine the effectiveness of range management plans and impacts (beneficial and adverse) of reindeer grazing on other preserve resources.

The Park Service will also cooperate in the development of a joint permit program or cooperative management agreements where permit areas include lands managed by other entities. A joint permit program or cooperative management agreement will be designed to streamline administrative requirements, but this will not necessarily imply uniform management of all lands covered by such permits or agreements. The various land-managing agencies have different mandates that must be reflected in the management of their respective lands.

Recreational Activities

Recreational visitor use within Bering Land Bridge National Preserve is expected to increase slowly. However, the preserve's remote location, difficult and expensive access, and general lack of well-known physical features that attract visitors will probably not result in very high levels of visitor use over the next five to 10 years or even longer.

The primary visitor attraction of the preserve will continue to be Serpentine Hot Springs. This area is one of the most attractive recreation sites on the Seward Peninsula. Visitors will continue to come here for a variety of experiences, including relaxing, bathing, hiking, photographing, and hunting, as well as for spiritual and medicinal purposes.

The present character and environment of the hot springs will be maintained. The National Park Service will work with all hot springs users who are interested in discussing management actions. A special effort will be made to keep the residents of Shishmaref informed about the use and management of the hot springs because of the strong interest the villagers have expressed at public meetings and in letters.

The area will continue to be open to the public on a first-come, first-served basis. The Park Service will, however, request users to notify preserve headquarters in Nome of their intent to use the facilities so that use can be monitored and people can be informed of available space. There will be no entrance fees for the hot springs.

Hiking areas in the preserve include the Serpentine Hot Springs valley, the Lava Lake area, the Kuzitrin/Imuruk/Cloud lakes area, the upper Inmachuk River area, the Killeak and Devil Mountain lakes, and the beaches along the northwest coast (see General Development and Visitor Use map). Recreational use of snowmachines and dog sleds will continue.

There are currently low levels of sport hunting and fishing within the preserve because better hunting and fishing opportunities on the Seward Peninsula are available outside the preserve. Most sport hunting in the preserve is for trophy-sized game, with hunters coming from outside the Seward Peninsula. Use levels for these activities are not expected to increase.

Other activities are very limited and appeal to special types of visitors. Examples of these visitors in 1984 were three French skiers who attempted to ski from Nome to Shishmaref, two residents from Nome who skied from Shishmaref to Nome, and two hikers who crossed the preserve as part of an extended Continental Divide hike from Mexico to Wales, Alaska. Recreational visitation of this type will continue, but it is not expected to increase significantly.

In accordance with section 1316(b) of ANILCA, the National Park Service proposes not to allow the establishment on public lands of any new "tent platforms, shelters, and other temporary facilities and equipment directly and necessarily related to" the taking of fish and wildlife in Bering Land Bridge National Preserve. Such new facilities or equipment would constitute a significant expansion of existing facilities or uses that would be detrimental to the purposes for which the preserve was established. Structures in support of subsistence activities are authorized under existing regulations (36 CFR 13.17).

Information and Interpretation

Information about the location of various features, access, resources, and recreational opportunities in the preserve will be provided at the NPS visitor centers in Nome and Kotzebue. It will emphasize safety concerns and the need for adequate preparation and group self-reliance. Visitors will be asked to respect the rights of private property owners within and adjoining the preserve, as well as to recognize that the preserve is also used for subsistence purposes. Informational and interpretive signs will not be placed in the preserve, with the possible exception of Serpentine Hot Springs. Information and interpretation in the preserve will be provided primarily through published materials and contact with NPS personnel. In Nome information and interpretation will be provided in cooperation with local organizations to make the best use of space, funding, and personnel.

Interpretive programs will include scheduled presentations at park headquarters or some other suitable visitor facility. An interpretive program will be developed for the Nome visitor center to increase awareness of the preserve and to describe the various resources and recreational opportunities. Informal interpretive activities will be carried on in Nome, Shishmaref, and Deering as interest and demand warrant.

Interpretation will provide an understanding of the resources of the preserve, helping to increase visitor awareness and enjoyment. Following approval of a general management plan, an interpretive plan will be prepared to specifically define the preserve's themes and determine media.

The primary interpretive theme will focus on the land bridge and the many plants, animals, and humans that migrated over it. Additional themes will include geologic features (volcanic lava flows, ash explosions, coastal formations, and other geologic processes), migratory birds, and arctic plant communities. Interpretation will also address past and present native cultures and subsistence lifestyles. Historical themes will include exploration, whaling, construction of the first telegraph line, mining, and reindeer herding.

Interpretive exhibits and artifact displays will be developed in cooperation with local private museums (the Carrie McLain Museum). Another possibility is the development of a museum and exhibits by the Bering Straits Native Corporation.

Information and interpretation will be presented by a variety of media, including a revised and updated brochure, slide programs, exhibits, and special interest information packets. Another interpretive opportunity will be to provide commercial airline passengers who travel between Nome and Kotzebue with information about the preserve.

Commercial Services

All commercial operators are required to obtain a permit, contract, or other written agreement to operate within the preserve (36 CFR 5.3). These written agreements often take the form of a commercial use license. A permit, contract, or written agreement will be issued to all qualified commercial operators upon request. The primary purpose of the written agreements will be to monitor commercial activities and to establish minimum safety standards, if necessary.

Where possible the National Park Service will encourage the use of local guides to provide services for visitors. In accordance with ANILCA section 1307(b), the Park Service will give preference to native corporations and local residents in the provision of visitor services.

Carrying Capacity

Carrying capacity for recreation is the amount and type of use an area can sustain over time without impairing the natural or cultural environment or the visitor experience. Because recreational visitor use is very low at Bering Land Bridge, no carrying capacity study is recommended at this time. Monitoring of resources will be conducted. If future visitor or subsistence uses or levels appear to be compromising the quality of either subsistence or recreational activities, or if the resources of the preserve are being degraded, a carrying capacity study will be conducted at that time, and use levels may be established or activities restricted.

OPERATIONS

Administration

Headquarters for preserve operations, administration, visitor information/interpretation, and maintenance will continue to be in Nome. These functions have different requirements for space and public accessibility, so they will be housed in various locations and structures throughout the city. The administration and operations office should be in a location, such as the federal building, that will facilitate cooperative activities with other regional agencies.

Visitor information services should be in a highly visible and accessible location, and space could either be shared with the Nome Visitor Information Bureau, combined with administration and operations, or located in a separate facility. The Park Service will cooperate with the Visitor Information Bureau to provide facts about the preserve to tour groups. Such information will be coordinated with the bureau's programs.

The maintenance and storage area for the preserve will be located away from Nome's central business district.

District ranger stations will be established at Shishmaref and Deering. The Shishmaref site will have the higher priority because of the size of the village and the different uses and activities in and near it. Both ranger stations will combine visitor contact, resource protection, and staff residence functions. If available, space will be leased in the villages, or land will be acquired in prominent locations so that facilities can be constructed.

The ranger stations will serve as field bases of operations for the district rangers and seasonal rangers/interpreters during the summer visitor season. NPS rangers will greet visitors and provide information about areas of interest such as traditional native subsistence practices, hiking, locally guided outings (by boat or walking), and the availability of native crafts and shops. In addition, information will be provided regarding private lands (allotments) and potential conflicts with subsistence activities. District rangers will also provide an opportunity for closer communications and interaction between village residents and the National Park Service. During the rest of the year, the district rangers will be stationed in Nome.

Staffing

Long-term staffing for the preserve will be eight permanent and nine seasonal positions. The establishment of these positions will be phased over the next 10 years.

Permanent Positions

Superintendent
Chief of interpretation and
resource management
Resource management specialist/
wildlife biologist
District rangers (2)
Interpretive specialist
Administrative technician
Clerk/typist

Seasonal Positions

Resource technicians (2)
Rangers/Interpretive
specialists (5)
Maintenance person
Clerk/typist

If it is cost-effective for the preserve to acquire its own aircraft, at least one park staff person will serve as pilot.

It will continue to be the goal of the National Park Service to use the local hire provisions of ANILCA, section 1308, wherever possible. As programs for resource management, interpretation, maintenance, and protection are developed, and qualified local hire applicants are identified, the local hire program will be utilized. In addition, cooperative programs will be developed for training or other purposes (see "Cooperative Education, Research, and Training Programs" below).

Park Housing

The scarcity and high price of housing in Nome make it extremely difficult for employees from outside of Nome to secure adequate housing. Housing is especially difficult to find for seasonal employees and lower graded permanent employees, and temporary quarters are not easily available for permanent employees who are locating their own housing.

To accommodate the projected long-term staff housing needs, four to six units of various sizes will be required in Nome. The first priority will be to acquire existing government or private housing. If this is not possible or if such housing is not suitable to NPS needs, duplexes or fourplexes will be constructed in phase with the establishment of positions and other regional priorities.

Communications

No communication facilities are now located within the preserve. To facilitate operations, temporary repeaters will be placed at key locations within or near the preserve. The Park Service will work with other agencies and organizations to locate permanent repeater sites outside the preserve to allow direct communications between the preserve and Nome.

Aircraft

For the short term, the Park Service will continue to contract with private charters for aircraft services. If it is cost-effective over the

long term, the Park Service may purchase aircraft to facilitate operations and resource management.

Cooperative Agreements

Law Enforcement; Search and Rescue. The Park Service will work with the Alaska State Troopers or other law enforcement agencies and local search-and-rescue organizations as needed.

Cooperative Education, Research, and Training Programs. The Park Service will cooperate with native corporations in Shishmaref, Wales, Deering, and Nome to facilitate the local hire program (see discussion of staffing above). Training courses, intern programs, and allowances for food or housing may be offered. Research programs will be developed to document and interpret traditional uses, customs, and practices that have occurred in the past in and near the preserve and those practices that continue today. The Park Service will also attempt to develop cooperative education programs to promote an understanding of the importance of artifacts and of the consequences of the losses of scientific and cultural values due to unauthorized excavation.

Information, Orientation, and Interpretation. There are many opportunities for cooperative information and interpretation programs in Nome, Shishmaref, and Deering. The Park Service will work with native groups, the city of Nome, the Nome Chamber of Commerce and Visitor Information Bureau, the Carrie McLain Museum, Northwest Community College, and others to provide information to visitors and opportunities to learn more about the history and the natural and cultural values of the preserve. Cooperative information and interpretive programs will allow the Park Service to provide its technical expertise, if requested, and to share facilities with other organizations.

One opportunity for cooperative facilities will be for the Park Service to work with the city of Nome, the Carrie McLain Museum, the Nome Convention and Visitors Bureau, and the Alaska Division of Parks and Recreation in the development of a 3.3-acre Nome historic park to commemorate the historic gold rush days of Nome as well as past and present native culture. A gold dredge on the site will be a focus of the park.

Exhibits. The Park Service will work with native groups, the state museum, and others to prepare interpretive exhibits and artifact displays that may be permanently exhibited in Nome or may be part of traveling exhibits throughout the region.

Natural Resource Management. The National Park Service will cooperate with the Alaska Department of Fish and Game and the U.S. Fish and Wildlife Service in research, data gathering, and monitoring programs. Specific ongoing programs that the Park Service will become more involved with are the ADF&G caribou monitoring program and the waterfowl monitoring program of the U.S. Fish and Wildlife Service.

Cultural Assistance Programs. The Park Service may provide advice, assistance, and technical expertise when requested by a native corporation or other group.

GENERAL DEVELOPMENT

The National Park Service will minimize development in the preserve by allowing only the construction of essential facilities that cannot be feasibly located outside the preserve. The only developed area in the preserve will continue to be Serpentine Hot Springs. Administrative facilities will be developed in Nome, Shishmaref, and Deering (see discussion of operations above).

In accordance with section 1306a, ANILCA, the secretary may establish administrative sites and visitor facilities within the preserve or outside the boundaries of the preserve. To the extent practicable and desirable, such sites and facilities will be located on native lands in the vicinity of the preserve.

Serpentine Hot Springs

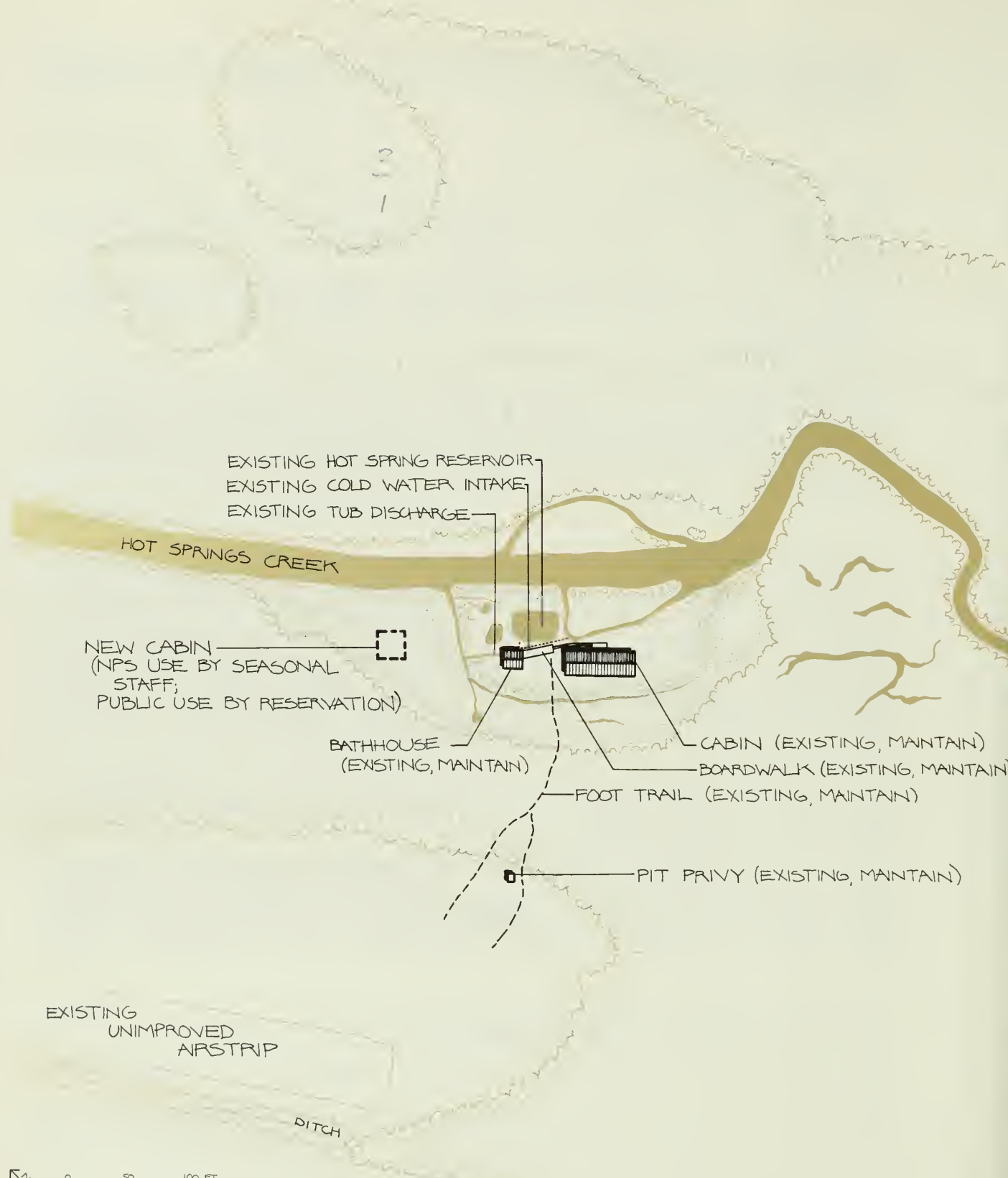
To maintain the present character of Serpentine Hot Springs the Park Service will not make any access improvements. The trail from Taylor will not be improved, and off-road vehicle use will continue to be prohibited. The airstrip will remain available, but it will not be maintained or improved (see Serpentine Hot Springs map). The Park Service will maintain the existing structures. New wood stoves will be installed as will an oil-burning stove on a trial basis.

If the existing structures cannot be repaired or if they are destroyed by wind or fire, the Park Service will replace them with structures similar in scale, design, and capacity.

Periodic maintenance of the site may require the construction of a small administrative cabin for the storage of essential supplies and equipment and temporary quarters for seasonal rangers and interpreters. This cabin would be available for public use when it was not needed by NPS employees.

Administration/Operations/Maintenance

Space requirements for operations and administration of the preserve are as follows:



PROPOSAL
SERPENTINE HOT SPRINGS
 BERING LAND BRIDGE NATIONAL PRESERVE

United States Department of the Interior / National Park Service
 DSC / MARCH 1985 / 182 - 20.027A

TERRACE

WILLOWS

WATER

THERMAL AREA

LOW GRASSES, SOFT SOIL

LOW PLANTS, GRAVEL

SEDGES, MARSHY

TALL GRASSES, DISTURBED SOIL

<u>Facility and Function</u>	<u>Location</u>	<u>Space Required</u>
Headquarters--administration, operations, collections storage, reference library	Nome	2,000 sq ft
Visitor Information Center--information desk, map and exhibit area, publication sales area, audiovisual room, storage	Nome	500 sq ft
Maintenance Facility--maintenance activities and storage	Nome	3,000 sq ft
District ranger stations--visitor contact, resource protection, and residences	Shishmaref Deering	1,500 sq ft each
Staff housing--permanent and temporary accommodations	Nome	four to six units (various sizes)

Where practicable, space for these functions will be leased. If this is not possible, facilities will be constructed.

SUMMARY OF ADDITIONAL PLANNING REQUIREMENTS

As indicated in previous sections, much additional specific research and planning will be required for Bering Land Bridge National Preserve. This will involve a variety of planning documents that will describe detailed management programs to be implemented on an annual basis. These programs are summarized below.

Resource Management Plan

The resource management plan will deal with both natural and cultural resources. The natural resource section will initially concentrate on formulating research programs and monitoring projects for wildlife and vegetation. As these projects are completed and the results analyzed, the plan will shift its emphasis to specific management activities for particular species and habitats, in cooperation with the state and other interested parties. Fire management will be an important element. Existing fire management programs will be updated as new information becomes available. Monitoring programs for air and water quality will be specified.

The cultural resource section will outline research needs, and as results are available, inventories and evaluations of all sites and structures will be included. The plan will also identify requirements for the preservation and care of materials collected as a result of research projects. Recommendations for each site will be made based on

significance. The plan will also include a list of classified structures and a cultural sites inventory.

Subsistence Management Plan

The subsistence management plan will include a detailed discussion of subsistence use areas as well as subsistence harvests for fishing, hunting, and gathering. The plan will also address access to areas where subsistence uses occur, as well as shelters and cabins. Methods for identifying unhealthy stressed species will be included, as well as priorities for addressing threats to maintaining healthy populations.

Reindeer Management Plan

The reindeer management plan will define sound range management practices, recognizing the need to provide and maintain healthy habitat for all species. The effects of reindeer on vegetation, conflicts with caribou and other wildlife, and facility requirements will all be addressed in the plan.

Interpretive Plan

The interpretive plan will identify information and interpretive programs for visitor contact outside the preserve and within preserve boundaries. Interpretive media (audiovisual techniques and exhibits), off-site programs (school, living history, traveling exhibits, oral history), and collection storage and care will be discussed, as well as cooperative agreements to address visitor needs.

Fire Protection Plan

Fire protection studies will evaluate fire hazards, through the analysis of vegetation, fuels, slope, and elevation.

Local Name Research

Local name research will identify and record local names for geographic features and their derivation.

ALTERNATIVES CONSIDERED

ALTERNATIVE A: CONTINUATION OF EXISTING POLICIES

Under alternative A the National Park Service would manage natural and cultural resources by monitoring activities and handling situations as they arose; visitor and consumptive uses would be the same as in the proposal. The Park Service would continue to coordinate with other agencies, organizations, and interests concerned with the management of the preserve. However, the Park Service would not initiate new programs, nor would it take the lead in implementing programs. Thus, the Park Service would have a less active role in the management of the preserve than under the proposal.

Resource Management

Natural Resources. Natural resources would be monitored so that any adverse effects on fish and game populations, vegetation, or natural processes due to reindeer grazing, fire management practices, fish and game management, and visitor use could be identified. Wherever possible, other agencies or institutions would be relied upon to collect and analyze new information. As problem areas were identified, specific management actions would be recommended.

Cultural Resources. Ongoing cultural resource management activities would continue. Specifically, the survey of cultural resources currently underway would continue, as would NPS involvement with specific activities that could affect cultural resources on a case-by-case basis. There would be cooperative management activities similar to those identified in the proposal; however, the Park Service would have a less active role in these programs because the NPS staff and budget would be limited.

General Use

Access and Circulation. Access and circulation would be the same as in the proposal; no improvements or changes would be made.

Subsistence Uses. Subsistence uses would continue to be managed according to state and federal regulations, as described in the proposal.

Reindeer Grazing. Increases in herd size and the construction of additional facilities above existing permitted levels would not be allowed. The National Park Service would rely primarily on research and monitoring activities of other agencies (e.g., Soil Conservation Service; and Agricultural Experiment Station and Cooperative Extension Service, University of Alaska) as the source of range resource information. The Park Service would initiate limited research and monitoring programs to respond to specific problems or concerns.

Recreational Activities. Existing activities would be allowed to continue, as described for the proposal.

Information and Interpretation. The information and interpretive programs would be similar to those of the proposal. The Park Service would participate in cooperative programs except that it would have less input into cooperative agreements because of smaller staffing levels.

Commercial Services. The same commercial services as described for the proposal would be allowed.

Operations

Administration. Administrative functions would be the same as those of the proposal except that no district ranger stations would be established. Three units of park housing would be required.

Staffing. The preserve staff would include five permanent and six seasonal positions. Permanent staff would consist of the superintendent, chief ranger, resource management specialist, administrative technician, and a clerk.

Aircraft. Aircraft requirements would be the same as in the proposal.

Cooperative Agreements. All cooperative programs would be the same as in the proposal except that the Park Service would have less input. The Park Service would participate only to a limited extent because of decreased funds for programs, no facilities, and limited staff time.

General Development

General development would be the same as in the proposal except that no district ranger stations would be established and only three housing units would be required for staff.

ALTERNATIVE B: INCREASED USE AND DEVELOPMENT

Alternative B would increase both consumptive and nonconsumptive uses in the preserve. The Park Service would improve access, construct public use cabins in three locations, and expand the capacity of facilities at Serpentine Hot Springs.

Resource Management

Natural Resources. Consumptive uses of commercially valuable wildlife would increase through the adjustment of bag limits and hunting seasons; any such adjustments would be based on studies. Other natural resources would be protected and would be monitored to detect any adverse effects that might require management action. Research projects would be conducted to address specific problems.

Cultural Resources. Cultural resource management would be similar to the proposal except that archeological investigations would be promoted and interpreted wherever possible.

General Use

Access and Circulation. The Park Service would improve access and circulation by working with local guides, aircraft charter companies, and tourist agencies to develop tours that would make it easier for visitors to get to and around the preserve. No new roads would be proposed; however, the feasibility of constructing airstrips at Lava Lake, Kuzitrin Lake, and Imuruk Lake would be studied. In addition, the Park Service would work with the state of Alaska to provide additional access to the upper Noxapaga River area by improving the abandoned landing area.

Subsistence Uses. Subsistence uses would continue to be subject to state and federal regulations, as described in the proposal.

Reindeer Grazing. Increases in herd sizes and facilities above current permitted levels would be allowed until adverse impacts to the range resource or other preserve resources were identified. The National Park Service would rely primarily on research and monitoring activities of other agencies (e.g., Soil Conservation Service; Agricultural Experiment Station and Cooperative Extension Service, University of Alaska) as the source of range resource information. The Park Service would initiate limited research and monitoring programs to respond to specific problems or concerns.

Recreational Activities. Recreational activities would be promoted under this alternative. In addition to all the recreational activities discussed under the proposal (beach walking, hiking, hunting), hiking would be further encouraged by providing marked trails. Three public use cabins, one each at Lava Lake, Kuzitrin Lake, and Devil Mountain Lakes, would be constructed to improve hunting and hiking opportunities.

Information and Interpretation. Information brochures would be prepared to show the types of activities available in the preserve. Interpretation would focus on the same themes as under the proposal except additional interpretive hikes would allow visitors to see the outstanding natural and cultural features of the preserve. Examples of some tour sites are the lava flows, maar craters, Serpentine Hot Springs, Sullivan Bluffs, Cape Espenberg, and the Trail Creek caves.

Commercial Services. As described under the proposal, commercial operators would be required to obtain commercial use licenses or other written agreements. In addition, the Park Service would encourage private operators to develop innovative visitor services such as guided boat tours from Deering to Sullivan Bluffs or from Shishmaref to the Serpentine River.

Operations

Administration. Administrative functions would be the same as those described under the proposal except that an additional district ranger station would be established at Serpentine Hot Springs. Five to seven units of park housing would be required.

Staffing. The preserve staff would include 10 permanent and 10 seasonal employees. The staff positions would be the same as for the proposal plus one district ranger and one seasonal ranger.

Aircraft. Aircraft requirements would be the same as for the proposal.

Cooperative Agreements. All cooperative agreements would be similar to those of the proposal. A special effort would be made to implement cooperative agreements relating to information and interpretive programs that would increase use.

General Development

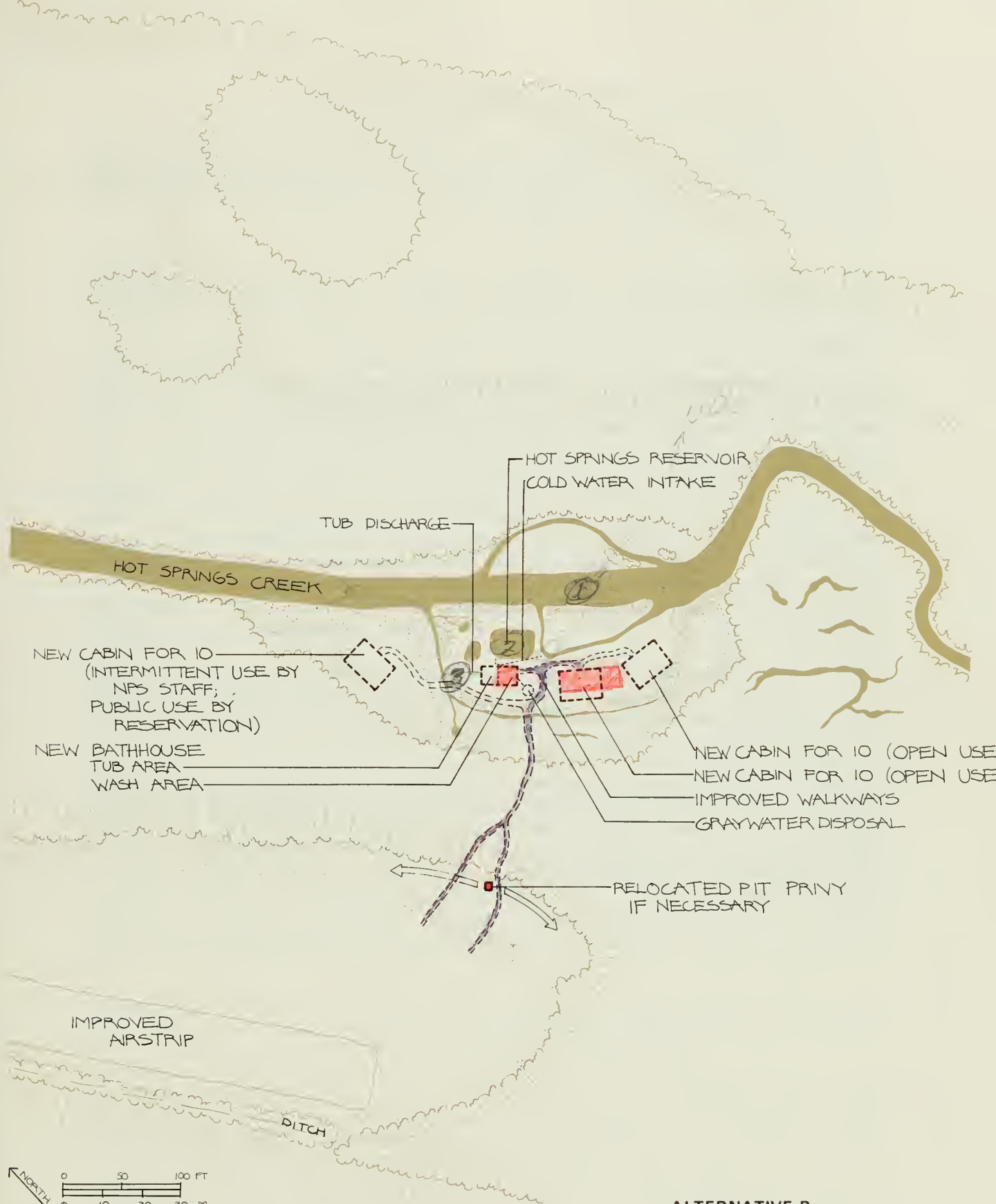
New facilities would be developed to promote and facilitate use in the preserve. The facilities at Serpentine Hot Springs would be expanded to double the present capacity (see the map for Serpentine Hot Springs). The main cabin would be replaced with three cabins, each containing 10 bunks, a cooking area, and an oil-burning stove, and visitors would have to bring their own fuel.

Two of the cabins would continue to be used for visitors on a first-come, first-served basis, while the third cabin would be used intermittently by seasonal NPS staff assigned to Serpentine Hot Springs. When not used by staff, it would be available to the public by reservation through park headquarters at Nome. This would guarantee space for some visitors while keeping the other cabins open for walk-in use.

The bathhouse would be replaced by a structure twice as large as the present one, with one side for soaking in the tub and one side for washing. The wash area would eliminate direct discharge of soap into the stream, as occurs now. It would consist of a wood mat or rack over a floor drain, and benches and buckets would be available. The floor drain would empty into a gravel pit in the thermal soil for percolation of wastewater.

New structures would be thoroughly insulated, and the foundation would be designed to take advantage of heat in the soil; however, the NPS/reservation cabin would not be on thermal soil. The pit toilet would be relocated along the ridge, at least 100 feet from the creek. The airstrip would be upgraded for year-round use by improving the base and drainage to eliminate mud.

Other small public use cabins would be located at Lava Lake, at Imuruk/Kuzitrin lakes, and at Devil Mountain Lakes. Hiking trails would be developed near these public use cabins as well as from Taylor and Macklin Creek to Serpentine and from the Deering and Inmachuk River road to inside the preserve.



TERRACE

WILLOWS

WATER

THERMAL AREA

LOW GRASSES, SOFT SOIL

LOW PLANTS, GRAVEL

SEDGES, MARSHY

TALL GRASSES, DISTURBED SOIL

ALTERNATIVE B **SERPENTINE HOT SPRINGS** BERING LAND BRIDGE NATIONAL PRESERVE

United States Department of the Interior / National Park Service
DSC / MARCH 1985 / 182 - 20,028A

OPTIONS CONSIDERED AND REJECTED

Several options for management and development of the preserve were identified during the scoping and public involvement process. These options were considered but rejected because they were not feasible, were contrary to NPS policy or the mandates of ANILCA, or would have unacceptable environmental impacts.

Except in extraordinary circumstances, habitat manipulation was rejected as a wildlife management strategy because of the clear congressional intent and NPS policies against such actions in national park system units in Alaska.

The elimination of reindeer grazing and the reintroduction of caribou in the preserve were considered because the Seward Peninsula was at one time used by caribou. However, ANILCA, section 201(2), clearly states that reindeer grazing will be allowed to continue in the preserve.

Large-scale recreation facility development and road construction, which would have included many new public use cabins, extensive hiking trails, and visitor centers, were also considered but rejected. Such major development projects would be contrary to the purpose of the preserve and the management objectives to protect the natural and cultural environment and to maintain the existing character. There would also be significant adverse impacts on the landscape, water quality, vegetation, and wildlife habitat, as well as on cultural resources. These adverse impacts could be mitigated to some degree, as has been demonstrated by similar projects elsewhere in Alaska. However, major facility development would change the character of areas and use patterns because use would tend to be more concentrated in certain locations.

Another option that was considered was moving headquarters closer to the preserve, for example, to Kotzebue, Deering, or Shishmaref. This was rejected on the basis that Nome is the regional center for the Seward Peninsula. It is the location of all state and regional agencies as well as the population and economic center.

ENVIRONMENTAL CONSEQUENCES

The environmental consequences of the proposal and the alternatives are summarized in table 9.

PROPOSAL

Natural Resources

Soils and Vegetation. The tundra and lichen vegetation of the preserve would be affected by reindeer grazing. Impacts would probably not be as great as when caribou herds used the range or when reindeer herds were much larger. At current grazing levels, the effects do not seem to be adverse. However, no specific studies have been done to determine the effects of reindeer grazing on the soils and vegetation of the preserve. Conducting further research and analysis under the proposal would help determine the actual impact of reindeer on vegetation and soils.

Herded reindeer have different grazing patterns than caribou. Reindeer will graze in one general area whereas caribou migrate great distances. It is argued that caribou actually have greater negative effects on soils and vegetation because of the numbers of caribou grazing in any one location.

The 5- to 10-acre area surrounding the Goodhope reindeer corral in the northern portion of the preserve is subject to localized impacts. The corral is used two or three times a year during reindeer handlings, with approximately 1,000 reindeer handled at a time. Impacts include trampling of vegetation and compaction of soils. All lands affected by reindeer corrals may be included in native allotments and thus may become private lands within the preserve boundary.

Willows in the Serpentine Valley would continue to be the primary source of fuel for wood stoves. Impacts of willow cutting are not known, and it is possible that there would be adverse effects. These potential impacts would be mitigated by monitoring and taking corrective actions if adverse effects were identified. One mitigating action would be to install an oil-burning stove on a trial basis.

Some minor effects on soils and vegetation would result from the construction of a small administrative cabin in the Serpentine Hot Springs valley. These effects would be restricted to a small area.

Floodplains and Wetlands. The only wetland and floodplain area in the preserve that would be affected by the proposal is in the Serpentine Hot Springs valley. The construction of a small administrative cabin and the possible replacement of the main cabin could affect land within the floodplain of Hot Springs Creek. No floodplain delineation is currently available. New cabin construction would follow the guidelines of Executive Order 11988 (Floodplain Management).

Table 9: Summary of Environmental Consequences

	Proposal: Minimum Action	Alternative A: Continuation of Existing Policies	Alternative B: Increased Use and Development
Natural Resources	Positive overall effects because of better understanding of natural systems, leading to better protection	Possible adverse effects because of less understanding about the functioning of natural systems	Some adverse effects resulting from increased use and a lack of understanding about the functioning of natural systems
Soils and vegetation	Some adverse effects from reindeer grazing, especially near corrals	Same as proposal, but effects could be more severe before they were detected	Same as alternative A, except possibly greater effects on soils and vegetation due to expansion of reindeer industry
Fish, wildlife, birds	Continued minor effects from subsistence hunting, fishing, egg collecting; extent of effects determined by research; protection of Serpentine Valley raptor habitat	Same as proposal	Potential effects on raptor habitat due to increased visitor use at Serpentine Hot Springs
Cultural Resources	Positive effects; protection of resources through inventory, monitoring, and cooperative programs	Some positive effects, but no guarantee that resources would be protected through cooperative programs	Inadvertent loss of some resources due to construction and other visitor-related development
General Use	Good information and interpretation; difficult access	Adequate information and interpretation; difficult access	Most use, easiest access; change in character of visitor areas, which would be viewed as an improvement by some visitors and as an intrusion on wilderness by others
Subsistence uses	Protection of use, access, and allotments; better protection of subsistence resources, based on an understanding of how natural systems function	Protection of use, access, and allotments, but possible long-term adverse effects because of an inadequate understanding of how natural systems function	Protection of use, access, and allotments, but potential effects from lack of resource information and competition from other user groups
Reindeer grazing	Benefits to herders from better understanding of natural systems; possible effects on two herders due to herd size limitation	Possible limitations on long-term growth of the reindeer industry	Most autonomy for reindeer industry; possible long-term adverse effects from expansion of herds
Socioeconomic Environment	Some effects from increased visitation and the establishment of two district ranger stations	Fewest effects from numbers of visitors; potential effects from visitors interfering with local subsistence activities	Same as proposal, but positive effects from increased visitor use and establishment of three district ranger stations

Fish, Wildlife, and Birds. There would be some impacts on fish, wildlife, and birds due to a continuation of subsistence hunting, sport hunting, fishing, and the shooting of reindeer herd predators, such as wolves and grizzly bears. There would also be some impact on bird populations from subsistence collecting of eggs. All of these activities are allowed by law and would not be directly affected by actions proposed in this plan.

Impacts of current use are not well known. The reported sport and subsistence harvest is very low. Unreported subsistence harvest, and the shooting of reindeer predators (grizzly bears and wolves), could be significant. The subsistence collecting of bird eggs has been occurring for many years without apparent adverse effects on bird populations. The impacts of these activities would be monitored in conjunction with the Alaska Department of Fish and Game and U.S. Fish and Wildlife Service to ensure that healthy wildlife populations were maintained.

The sensitive raptor habitat of the Serpentine Hot Springs valley would be preserved because the existing character of the valley would be protected and future development would be limited.

Air and Water Quality. Air and water quality of the preserve would be protected because development would be minimized.

The proposed boundary adjustment with the state to align the boundary with topographic features in the Serpentine Hot Springs area would ensure the protection of Serpentine River water quality from any degradation resulting from land disturbance.

Some limited degradation of water quality would occur at Serpentine Hot Springs because of soap being washed into the stream. The effects of soap being discharged to the stream are not known, but they would be monitored. These effects would be mitigated by encouraging washing to be done elsewhere, dispersing rinse water on the surrounding tundra rather than letting it enter Hot Springs Creek, and encouraging the use of biodegradable soap.

Conclusion. Overall the proposal would have favorable effects on the natural environment because comprehensive research programs would allow better understanding and management of natural systems.

Cultural Resources

Identifying, evaluating, monitoring, and protecting the preserve's cultural resources would help ensure that resources would not be inadvertently destroyed.

Proposed educational programs would increase public awareness and appreciation of cultural resources and help reduce unlawful or nonscientific excavations. Retrieval of artifacts removed from the preserve before its establishment and the proper storage and display of artifacts would be positively received by the people of the region.

Conclusion: Implementation of the proposal would have no significant adverse effect on any known cultural resources, and all significant resources would be ensured of protection, including those under interim conveyance.

General Use

Visitor Use. Information about the preserve and how to gain access to it would be readily available. In-depth interpretive information would also be available for those who were interested but unable to travel to the preserve. People who did travel to the preserve would have a better understanding of the natural and cultural resources.

Active NPS participation in cooperative programs for information and interpretation with the city of Nome, native organizations, and private groups or institutions such as the Carrie McLain Museum would allow efficient use of funds from all organizations, avoid duplication of efforts, and maximize use of available personnel, expertise, and facilities. Cooperation would also allow more programs and projects to be accomplished, thus benefiting visitors to the region.

Visitors who traveled to the villages of Shishmaref and Deering would be able to talk with NPS interpreters about local conditions and practices. This would increase the awareness of recreational visitors to such uses as subsistence and thus minimize conflicts between users. Some visitors might consider the district ranger stations as an intrusion on the native communities. This impact would be mitigated by the Park Service maintaining a "low profile" at these district ranger stations.

The proposed boundary adjustment with the state in the vicinity of Serpentine Hot Springs would prevent any further degradation of views.

Conclusion: More information would be provided to potential visitors to the preserve. Interpretive programs would help visitors understand the value of natural and cultural resources.

Subsistence Uses. The rights of subsistence users would be protected through the enforcement of state and federal regulations. Access for subsistence uses would be ensured. In addition, subsistence activities would have priority over other consumptive uses should any limitations be required. The proposal is consistent with and carries out the objectives and mandates of ANILCA (see appendix D).

Subsistence resources would be protected because the functioning of natural systems would be better understood. Access, use, and ownership of allotments would all be protected.

Conclusion: The implementation of the proposal would have no adverse effects on subsistence uses.

Reindeer Grazing. Maintaining present limitations on reindeer grazing within the preserve, pending the completion of range management plans, could result in some restrictions on herders who wanted to increase herd

sizes above permit levels. This could most directly affect two herders (Goodhope and Karmun) whose ranges are located mostly within the preserve. However, the Park Service has received no requests from these herders to expand their herds beyond present limits, and the Goodhope herd (the only range entirely in the preserve) is currently one half its permitted size of 2,000. The Karmun herd is about 300 animals short of the permitted 2,500. There could also be long-term restrictions on herd size depending on the results of range management plans and associated monitoring studies. Any long-term limits on increases in herd sizes beyond existing levels would also affect Goodhope and Karmun. The extent of any such restrictions would not be known until the range management plans were completed and the monitoring studies underway.

Reindeer grazing within the preserve could also be adversely affected by the encroaching western arctic caribou herd and the prohibition on predator control programs. Although the National Park Service would not directly take measures that would favor reindeer over either caribou or predators, the Park Service would work to mitigate any adverse effects on herds in cooperation with the Alaska Department of Fish and Game and the herders.

Restrictions on the location of new facilities could also affect herders, especially Goodhope and Karmun. New facilities would not be prohibited within the preserve, but the herder's preferred location might not be compatible with NPS management objectives. In such cases, the National Park Service would work with the herders to locate alternative areas where the needs of both the herders and the Park Service could be accommodated.

Implementation of joint permits or cooperative management programs would reduce paperwork for reindeer herders operating within the preserve.

Conclusion: Based on current and projected levels of reindeer grazing within the preserve, the effects of any restrictions would be minor. Therefore, no significant impact on reindeer grazing is expected under the proposal.

Socioeconomic Environment

Local Economy. The implementation of the proposal would ensure continued recreational opportunities in the preserve. Greater use of the preserve would benefit the local economy by increasing local opportunities in the goods and services industries. Purchases of supplies for preserve maintenance and operation would also benefit the local economy, as would the payroll for NPS personnel, including local residents who worked in the preserve. The total annual payroll for 17 full-time and seasonal positions would be approximately \$330,000.

Hiring local residents would benefit the Park Service because people who are familiar with local issues, history, and conditions would be on the

staff. The local communities would benefit because additional wage income positions would be available.

The establishment of local guide services and tour operators who would provide visitor-related services in the preserve would benefit the communities of Nome, Shishmaref, Deering, and Wales. Local guides and tour operators would have the advantage of knowing the terrain, conditions, and history of the area.

Local Villages. The most significant social and economic impacts would occur in the native villages closest to the preserve--Shishmaref and Deering. The establishment of district ranger stations and projected visitor use increases, although minimal, would affect these villages because they are so small and are visited by less than 100 tourists a year. Shishmaref has three small general stores and Deering has one. There are no other commercial services available in these communities. Projected visitation could increase to 200 tourists per year by 1995 in these villages. Tourists would create a demand for services such as a food, lodging, and tours.

The establishment of district ranger stations would have a positive impact in Shishmaref and Deering by helping the village residents to better understand the function of the Park Service. At the same time the Park Service would gain a better understanding of local issues, problems, and concerns. In addition, seasonal staffing positions at the district ranger stations would be ideally suited to the hiring of local residents. The ranger stations would also help mitigate the effects of greater numbers of visitors by serving as centers to answer questions and to distribute use.

Conclusion. The overall economic benefits resulting from the proposed management of the preserve would not be substantial, but they would be felt in the villages of Shishmaref, Wales, and Deering, as well as Nome. The contributions to the local and regional economies that would result from proposed park operations and the anticipated moderate increase in preserve visitation would help stabilize the economies by providing new sources of income and expanding opportunities for tourism.

General Conclusion

The primary purposes of the proposed actions would be to protect resource values and to facilitate visitor understanding of natural and cultural resources and subsistence uses. In general, implementing the proposal would have positive effects on preserve resources, the visitor experience, the effectiveness of park programs, and the socioeconomic base of the Seward Peninsula.

ALTERNATIVE A

Natural Resources

Soils and Vegetation. In general effects on soils and vegetation would be the same as under the proposal except that natural systems would not

be understood as well and effects could go undetected. Adverse effects might be mitigated in part by conducting specific studies once they were identified. However, it could take longer to repair any damage because of the fragile nature of the environment.

Floodplains and Wetlands. Effects on floodplains and wetlands would be the same as for the proposal.

Fish, Wildlife, and Birds. Alternative A could result in less protection of fish, wildlife, and birds in the preserve because there would be less information about these resources. Any adverse effects would be partially mitigated by conducting specific resource studies once adverse effects had been identified. However, it could take a fairly long time to correct adverse effects because of the fragile nature of the environment.

Air and Water Quality. Effects on air and water quality would be the same as for the proposal.

Cultural Resources

Effects on cultural resources would be the same as those for the proposal except that the Park Service would be less active in the development and implementation of cooperative programs. The Park Service would continue to cooperate with local groups and institutions, yet because of the limited staff and programs, it would be difficult for the Park Service to carry out major actions as part of the cooperative agreements.

General Use

Visitor Use. Under alternative A visitors would have less access to information about the preserve and less assistance from staff than under the proposal because of the decreased ability of the Park Service to carry out cooperative agreements for interpretive programs. For recreation-oriented visitors, this lack of information could lead to unfulfilled expectations, safety problems, and an unsatisfying experience. It could also lead to insensitivity to resources in the preserve and to the rights of subsistence users. These effects could be mitigated if the private sector established local guide and tourist services and if the Nome Chamber of Commerce and Visitor Information Bureau helped distribute information. The absence of an NPS presence in the villages of Shishmaref and Deering could result indirectly in conflicts between visitors and village residents.

Subsistence Uses. Impacts on subsistence uses would be similar to those of the proposal except that a lack of research would make it extremely difficult to determine whether wildlife populations were being used to such an extent that they could not be sustained over the long term. Resource monitoring programs and specific research studies on resources that were being adversely affected would help prevent further damage. However, even with resource monitoring, adverse effects might not be identified until they were already significant. If effects were identified, the superintendent could close an area or restrict activities (36 CFR 13.30, see appendix B).

Reindeer Grazing. The effects of alternative A on reindeer grazing within the preserve would be similar to those of the proposal except that the current situation would be maintained for both the short and long term. No active range management program would be initiated that would allow for increases above current permitted levels. This could adversely affect long-term growth of the reindeer industry in the preserve portion of the Seward Peninsula.

Socioeconomic Environment

Socioeconomic effects would be less than under the proposal. The villages of Shishmaref and Deering would have fewer tourists, and no district ranger stations would be established in these villages. Thus there would be fewer contacts and less interaction with NPS staff. Tourists who did come to one of the villages might not be adequately informed about private and public landownership in the area, subsistence uses, accommodations, or recreational opportunities. Tourists could also be seen as a nuisance to village residents. The establishment of local guides and tourist information services would mitigate these adverse effects. With a proposed staff of 11 permanent and seasonal positions, and an annual salary of \$190,000, there would be fewer impacts on the Nome economy than under the proposal. Visitation levels would be similar to those of the proposal. Thus there would be an overall long-term positive effect on the region.

General Conclusion

The impacts of alternative A would generally be similar to those of the proposal except that the Park Service would have a less active role in cooperative agreements and research programs. As a result, the Park Service would be less able to protect natural and cultural resources in the preserve. The extent of positive, secondary impacts on the socioeconomic environment would be less under this alternative than under the proposal.

ALTERNATIVE B

Natural Resources

Like alternative A, alternative B would result in negative effects caused by insufficient knowledge of how the natural systems in the preserve function. Resource monitoring programs and specific impacts related to research would help mitigate these adverse effects, but it is possible that adverse effects would not be detected until they were significant. Adverse effects on soils and vegetation could eventually result from overuse by visitors or by reindeer grazing. In addition, the development of facilities would result in localized vegetation losses and soil compaction near facilities (less than 1/2 acre at three different sites). The sensitive raptor habitat in the Serpentine Hot Springs valley could be affected by an increase in visitor activities at that location.

Soils, vegetation, floodplains, and wetlands would be affected by constructing additional cabins and expanding the capacity at Serpentine Hot Springs. The construction of three new cabins in the preserve (one each at Lava Lake, Imuruk/Kuzitrin lakes, and Devil Mountain Lakes) would result in soil compaction and loss of vegetation in adjacent areas.

Cultural Resources

Cultural resource effects of alternative B would be similar to those of the proposal except that minor excavations associated with construction could result in some irreversible and irretrievable loss of archeological information. These effects would be mitigated by following NPS policies and professional procedures regarding data recovery.

General Use

Visitor Use. There would be benefits to visitors because access to the preserve would be easier. Additional public facilities at Serpentine Hot Springs and three other preserve locations (Lava Lake, Kuzitrin/Imuruk lakes, and Devil Mountain Lakes) would provide for greater visitor comfort and safety. Some users, however, would see these developments as an intrusion on the preserve's wilderness qualities.

Subsistence Uses. Effects on subsistence uses would be similar to those of alternative A. Adverse effects could be more severe, however, because of greater use.

Reindeer Grazing. The effects of alternative B on reindeer grazing within the preserve would be similar to those of the proposal except that herders would be allowed to increase herd sizes until adverse impacts became evident. Thus until adverse impacts were identified, there would be fewer restrictions on herders. Some areas could be significantly affected by grazing practices before the effects were identified by NPS staff. This could result in some loss of resource values. Also there would be no restrictions on the location of new corrals and handling facilities within the preserve. Adverse effects on soils and vegetation could eventually lead to reductions in grazing areas and smaller herds.

Socioeconomic Environment

The socioeconomic effects of alternative B would be very similar to those of the proposal. However, additional staff and a higher projected visitation would result in slightly increased secondary economic effects.

General Conclusion

Alternative B would have more extensive effects than either alternative A or the proposal because of increased use levels. Alternative B would change the existing character of the preserve by increasing use, particularly recreational use, and the level of associated development.

COMPLIANCE

This section briefly describes the laws, executive orders, and policies that this planning project is required to address or comply with. In many cases compliance has already been discussed in previous sections. The information is repeated here to provide a comprehensive discussion.

Detailed discussions of the requirements of ANILCA and the federal regulations for national park system units in Alaska are included in appendixes A and B.

NATURAL ENVIRONMENT

Clean Air Act, Clean Water Act: None of the proposed actions would appreciably affect air or water quality within the preserve. All NPS facilities would meet or exceed standards and regulations for proper waste disposal.

Rivers and Harbors Act: Permits from the U.S. Army Corps of Engineers for work in navigable waters of the United States would be obtained.

Executive Orders 11988 (Floodplain Management) and 11990 (Protection of Wetlands): Because there is little or no human habitation along the rivers in the preserve, the Corps of Engineers does not consider floodplain mapping within the preserve a high priority. Since no floodplain mapping exists for the preserve, the National Park Service would assume worst-case conditions for the placement of facilities. Development of new facilities would be preceded by site-specific analyses. New cabin construction would comply with EO 11988 and 11990. No proposal would affect wetlands within the preserve.

Historic and potentially historic structures along rivers within the preserve would be assessed for their potential for flooding and in general would be managed to ensure their on-site preservation. This is in keeping with NPS guidelines and would have no potential for adverse effects on floodplains.

Prime and Unique Agricultural Lands: No agricultural lands have been identified on the Seward Peninsula.

Safe Drinking Water Act: The plan does not propose to provide any public drinking water within the preserve.

Endangered Species Act: Pursuant to section 7 of the Endangered Species Act, the U.S. Fish and Wildlife Service was contacted in March 1984 for a list of threatened and endangered plant and animal species that might occur within the preserve. In their response of March 28, 1984, the Fish and Wildlife Service identified the arctic peregrine falcon as possibly having nested near the preserve in the Cape Deceit area. However, no peregrines are known to nest within the preserve; migratory peregrines probably pass through the area.

Two plant species, Artemisia senjavinensis and Carex jacobi-peteri, are candidate species that may be considered for future listing as threatened or endangered.

Because no threatened or endangered species were identified within the area, no further consultation with the U.S. Fish and Wildlife Service is required.

Protection of Fish and Game and Waters Important to Anadromous Fish (Alaska State Statutes): Before undertaking any development or action that could affect spawning and rearing habitat for anadromous fish in designated streams, the National Park Service would request a permit from the Alaska Department of Fish and Game.

Alaska Hunting, Trapping, and Fishing Regulations: All hunting, trapping, and fishing within the preserve, whether for sport, subsistence, or commercial purposes, are subject to established state laws. The National Park Service will ask the state for concurrent jurisdiction so that NPS rangers can help enforce these laws within the preserve.

Alaska Coastal Management Program: A consistency determination has been prepared pursuant to the Alaska Coastal Management Act of 1977, as amended (see appendix F). Based on the findings of the consistency determination, the preferred alternative is consistent with the Alaska coastal management program.

Marine Protection Research and Sanctuaries Act, Estuary Protection Act, Marine Mammal Protection Act: Projected visitor use levels and forms of human activity within the preserve are not expected to significantly affect ecological systems, marine environments, or human health. Proposed actions comply with the Marine Protection Research and Sanctuaries Act of 1972 (16 USC 1451 et seq.). Proposals would not affect estuarine resources or marine mammal populations and would comply with the protection and conservation tenets as provided in the Estuary Protection Act (16 USC 1221) and the Marine Mammal Protection Act (16 USC 1361 et seq.).

CULTURAL RESOURCES

Antiquities Act, Historic Sites Act, National Historic Preservation Act, Archeological Resources Protection Act: All proposed actions would fully comply with appropriate cultural resource laws and regulations. All proposals and activities affecting or relating to cultural resources have been developed and would be executed with the active participation of professional historians, archeologists, anthropologists, and historical architects, in accordance with NPS "Management Policies" and "Cultural Resources Management Guidelines" (NPS-28). No undertaking that would result in the destruction or loss of known significant cultural resources is proposed in this plan.

In accordance with the September 1981 amendment to the 1979 programmatic memorandum of agreement between the National Park Service, the Advisory Council on Historic Preservation, and the National Council of State Historic Preservation Officers, the Park Service has requested the advice and consultation of the Advisory Council and the Alaska historic preservation officer during the preparation of this plan. A meeting was held in Anchorage in April 1984 with the Alaska historic preservation officer to discuss coordination and consultation procedures for this plan. The Advisory Council was provided a copy of the "Task Directive" for this plan. The advice and consultation of these offices will continue to be requested as the plan progresses. The council and the state historic preservation officer will receive copies of the draft plan for comment, and they will be invited to attend all future public meetings.

1982 NPS/Native American Relationships Policy: A thorough effort has been made to identify all native corporations and local native American groups and individuals who would be interested in participating in this planning effort and who have traditional ties with the preserve. The planning team has met with representatives of these groups at various stages of the plan's development. These individuals and groups are on the mailing list, and they will continue to be consulted, invited to all public meetings, and sent copies of all public information documents for review and comment.

SOCIOECONOMIC ENVIRONMENT

Concessions Policy Act: If the level of use within the preserve increased to the point where business licensees were replaced by concessioners, the concession contracts would be issued in accordance with this act.

Architectural Barriers Act: All public facilities both inside and outside the preserve would be accessible to the handicapped to the extent possible.



LAND PROTECTION PLAN

SUMMARY

Current Landownership (in acres)

Federal (includes 187,641 acres of selections by native corporations and individuals; not all lands selected by native corporations expected to be conveyed because the selections exceed total acreage entitlements) 2,783,810

Nonfederal 1,280

Total 2,785,090

Acres to be Protected

(includes 187,641 acres of selections by native corporations and individuals) 188,921

Proposed Methods of Acquisition

Fee-simple acquisition 2,320
Cooperative agreements/Alaska Land Bank 152,914
Relinquishment of selections 35,607

Statutory Acreage Ceiling

There is no acreage ceiling for the preserve. Pursuant to minor boundary adjustment provisions of ANILCA, 23,000 acres may be added to or taken away from the preserve. In addition, the secretary of the interior may acquire private land or designate as federal lands, areas not to exceed 7,500 acres that contain significant archeological or paleontological resources closely related to the preserve.

Funding Status

Authorized None
Appropriated None
Obligated None

Recommendations and High Priorities

Acquire fee-simple interest in any nonfederal lands (including lands that are conveyed in the future) that have significant natural and cultural resources that are not now adequately protected. If the regional corporation selections for Serpentine Hot Springs (FF33837, 1,920 acres) are conveyed, the area will be acquired in fee through an exchange.

Acquire fee-simple interest in essential public use areas. Specific tracts to be acquired are at Devil Mountain Lakes and Killeak Lakes (FF018545 parcel A, FF016806, FF000049 parcel B, FF000072 parcel B, and FF017662). Other areas with visitor use potential are along the beaches of the northwest coast of the preserve, and these areas will be considered for acquisition as public use patterns and trends develop.

Acquire administrative sites in Nome, Shishmaref, and Deering.

Retain fee-simple interest in lands selected as cemetery/historical sites under ANCSA, section 14(h)(1), through relinquishment by regional native corporations.

Modify the preserve boundary near the Continental Divide and Midnight Mountain (Serpentine Hot Springs area).

INTRODUCTION

In May 1982 the Department of the Interior issued a policy statement for use of the federal portion of the Land and Water Conservation Fund, which requires that, in carrying out its responsibility for land protection in federally administered areas, each agency using the fund will

- identify what lands or interests in lands need to be in federal ownership to achieve management purposes consistent with objectives for the unit

- use to the maximum extent practical cost-effective alternatives to direct federal purchase of private lands and, when acquisition is necessary, acquire or retain only the minimum interests needed to meet management objectives of the park system unit

- cooperate with landowners, other federal agencies, state and local governments, and the private sector to manage nonfederally owned lands within units of the national park system for public benefit or resource protection

- formulate, or revise as necessary, plans for land acquisition and resource use or protection to ensure that sociocultural impacts are considered and that the lands are properly managed

In response to this policy, the National Park Service requires that a land protection plan be prepared for each unit in the national park system that contains private or other nonfederal lands or interests in lands within its authorized boundary.

The guiding principle of each land protection plan is to ensure the protection of each national park system unit, consistent with the stated purposes for which it was created and administered. Besides identifying lands or interests in lands that need to be in public ownership and the minimum interests needed to protect them, land protection plans are prepared to

- inform landowners and the public about the National Park Service's intentions for buying or protecting land through other means within the unit

- help managers identify priorities for making budget requests and allocating available funds to protect lands and preserve resources

- find opportunities to help protect the preserve by cooperating with state or local governments, native organizations, and other private landowners

The major elements addressed by this plan include

- the identification of nonfederal lands within the preserve boundary

existing and potential uses of nonfederal lands as well as compatible and incompatible uses

external conditions affecting the preserve

existing protection measures and their adequacy

alternative protection measures and their effects

recommendations for protecting nonfederal lands in the preserve, boundary changes, and the acquisition of administrative sites outside preserve boundaries

Specific land protection issues that are addressed by this plan are the protection of natural and cultural resources and the provision of visitor access, whether it is by full fee acquisition, less-than-fee acquisition, cooperative agreements, or other means. The land protection plan will be reviewed annually and updated as necessary.

This plan does not constitute an offer to purchase lands or interests in lands; neither does it diminish the rights of nonfederal landowners. The plan is intended to guide subsequent land protection activities subject to the availability of funds and other constraints.

PURPOSE OF THE PARK AND RESOURCES TO BE PROTECTED

SIGNIFICANCE AND PURPOSE OF THE PRESERVE

The primary purpose for the establishment of Bering Land Bridge National Preserve is to protect and preserve for research and interpretation a portion of the 1,000-mile-wide land link that intermittently connected Asia and North America 14,000 to 25,000 years ago. The lands within the national preserve contain paleontological deposits that can be studied and analyzed to determine the climate and conditions that existed when plants and animals migrated between the North American and Asian continents. The preserve also has high potential for archeological evidence of early man's habitation in northwest Alaska. Serpentine Hot Springs is a significant geothermal resource and recreation area set in a strikingly scenic valley where granite spires and pinnacles rise to 100 feet. The cultural significance of the area has long been recognized for its use in native healing practices and as a training ground for shamans. The management purposes of the preserve are described in the "Introduction" to this document.

RESOURCE DESCRIPTION

The preserve resources are described in "The Bering Land Bridge Environment" section. No known federal or state listed or candidate rare, endangered, or threatened plant and animal species occur in the preserve.

LEGISLATIVE AUTHORITIES

Passage of ANILCA provided a general framework for land protection for the newly established conservation units in Alaska. Section 1302 provides the general authorities for land acquisition (see appendix A). The secretary of the interior is authorized to acquire by purchase, donation, exchange, or otherwise any lands or interests in lands within the preserve. However, any lands or interests owned by the state and local governments or by native village and regional corporations may be acquired only with the consent of the owners. Furthermore, lands owned by natives who received title to the surface estate of lands from a village corporation as a primary place of residence, business, or subsistence campsite (ANCSA, sec. 14 (c)(1)), or from the secretary of the interior as a primary place of residence (sec. 14(h)(5)), may be acquired only with the consent of the owner. However, land may be acquired if the secretary determines that it is no longer being used for the purpose for which it was conveyed and that the use is or will be detrimental to the purpose of the preserve.

Native allotments or other private small tracts may be acquired without consent only after an exchange for other public lands of similar characteristics and like value, if available, is offered and if the owner chooses not to accept the exchange. Exchanges will be complicated by present selections and past conveyances of lands within the state, and the lack of suitable substitute lands.

No improved property will be acquired without the consent of the owner unless such acquisition is necessary for the protection of resources for which the preserve was established. When an owner of improved property consents to exchange lands or to sell to the United States, the owner may retain a right of use and occupancy for noncommercial residential and recreational use by agreement with the National Park Service.

Section 1302(i)(1) and (2) of ANILCA authorizes the secretary of the interior to acquire, by donation or exchange, state-owned or validly selected lands that are contiguous to the preserve. Any lands so acquired will become part of that conservation unit without reference to the 23,000-acre restriction included in minor boundary adjustments (section 103(b)).

In addition, the secretary of the interior "may designate federal lands or he may acquire . . . with the consent of the owner . . . any significant archeological or paleontological site" outside the preserve boundary that is closely associated with the purposes of the preserve (ANILCA sec. 1304). Such acquisitions may not exceed 7,500 acres. The National Park Service may also acquire administrative sites and visitor facilities outside the boundaries of the preserve (ANILCA sec. 1306).

Section 103(b) states that only the public lands within the boundaries of any conservation system unit shall be deemed to be included as a portion of the unit. The state, native, and other private lands within the boundaries are not subject to regulations applicable solely to the federal lands. If conveyed to the federal government under the provisions cited above, such lands will become part of the preserve and will be subject to those regulations.

In addition to complying with the above legislative and administrative requirements, the National Park Service must administer the area as a unit of the national park system, pursuant to the provisions of the act of August 25, 1916 (16 USC 1 et seq.), as amended and supplemented, and in accordance with the other provisions of title 16 of the United States Code, title 36 of the Code of Federal Regulations, and other applicable laws. The National Park Service has proprietary jurisdiction over federally owned lands in the unit.

MANAGEMENT OBJECTIVES

The objectives for the preserve are listed in the "Introduction" to this document.

LANDOWNERSHIP AND USES

LANDOWNERSHIP

Bering Land Bridge National Preserve contains 2,783,810 acres (99 percent) of federally owned land (see Land Status map in pocket on back cover). However, some 187,641 acres (7 percent) are subject to application by native village or regional corporations (including overlapping applications made by both), cemetery sites and historical place selections, native small tract applications, or unpatented mining claims. There is one small portion of intermly conveyed village corporation land (1,280 acres, 0.05 percent) northwest of the Killeak Lakes, but there are no other private or patented lands.

At present it appears that not all of the village and regional corporation selections within the preserve will be conveyed. These corporations have overselected their legal entitlements, and current information indicates that most entitlements will be filled from selections outside the preserve. It is anticipated also that most applications for historical places and cemetery sites will be rejected, because prior to the submittal of applications the lands were closed to any selections by Public Land Orders 5180 and 5250. Cemetery and historical sites that are within the boundary but not included in lands closed to selection by these public land orders may be approved by the Bureau of Land Management.

Table 10 lists the 104 allotment applications. There are 166 parcels, with a total of 12,250 acres. The Bureau of Land Management is in the process of adjudicating these allotment applications. Most allotments are located along the Chukchi Sea and Goodhope Bay coastlines and along the lower Serpentine River. No allotments are known to have been conveyed. If applications are approved and conveyances are made, existing uses are not expected to change. Table 11 summarizes the land status in the preserve.

MINING CLAIMS

Altogether there are 41 lode and 38 placer unpatented mining claims within the preserve boundary. These claims are in two groups, one adjacent to and south of the Serpentine Hot Springs valley and the other along Humboldt Creek. Neither of these areas is now active. The validity of these claims is being examined.

COMPATIBILITY OF LAND USES

At present most existing land uses are compatible with management objectives of the preserve. Existing compatible uses are subsistence hunting, fishing, and gathering; cabins necessary for subsistence activities; sport hunting; and reindeer grazing and related structures essential to herding activities. Associated activities include travel to subsistence areas or herd locations, and travel between villages and cabins (temporary and permanent). Other very limited activities within

Table 10: Native Allotment Applications

<u>File No.</u>	<u>Applicant</u>	<u>Number of Parcels</u>	<u>Total Acres</u>
FF030127	Goodhope, Sr., Fred	2	120
FF030541	Moses, Sr., James	1	30
FF031702	Goodhope, Fannie	2	120
FF000049	Barr, Sr., Gideon K.	2	160
FF000072	Cross, Elizabeth B.	2	146.5
FF013821	Barr, Edward A.	1	160
FF015393	Moses, Bessie A.	1	160
FF016717	Barr, Gilford	1	160
FF016719	Barr, Pauline	1	160
FF016806	Barr, Walter	1	160
FF016934	Tocktoo, Vincent J.	3	160
FF017476	Karmun, Mamie	1	160
FF017477	Taft, Florence	1	160
FF017661	Moto, Donald	1	160
FF017662	Moto, Margaret M.	1	80
FF017696	Kiyutelluk, Morris U.	1	160
FF017961	Eutuk, Vern	1	80
FF017962	Olanna, Elliot	2	160
FF018434	Olanna, Alfred	2	160
FF018509	Eningowuk, Nellie	3	160
FF018510	Eningowuk, Philip K.	2	120
FF018512	Kiyutelluk, Steven A.	1	80
FF018514	Kuzuguk, Fanny	2	160
FF018515	Kuzuguk, Jennie	1	160
FF018516	Kuzuguk, Nora Ann	1	160
FF018517	Ningeulook, Ray H.	1	80
FF018518	Obruk, Christine J.	2	80
FF018519	Obruk, Sergie	1	120
FF018520	Okpowruk, Edith	1	160
FF018523	Sinnok, Loretta	1	80
FF018524	Tocktoo, Andrew	2	80
FF018525	Tocktoo, Jesse	2	80
FF018526	Tocktoo, Clarence G.	2	120
FF018527	Weyiouanna, Ardith M.	2	80
FF018534	Barr, Katherine	3	120
FF018535	Eningowuk, Delbert	2	120
FF018536	Kiyutelluk, Lillian	2	160
FF018537	Kokeok, Benjamin	1	120
FF018538	Kokeok, Harry	1	40
FF018539	Koonuk, Annie	2	80
FF018540	Kuzuguk, Rena	1	80
FF018541	Mingoona, Jakie N.	1	80
FF018542	Nayokpuk, Lawrence	1	40
FF018543	Cowart, Susan Nayokpuk	3	160
FF018544	Ningealook, Andrew	4	160
FF018545	Obruk, Delbert P.	2	120
FF018547	Obruk, Tommy	1	40
FF018549	Olanna, Albert	3	160
FF018550	Olanna, Arnold	2	160
FF018551	Pootoogoolook, Bertha	1	80
FF018553	Kokeok, Clara S. Sinnok	1	40
FF018554	Sinnok, James A.	2	160
FF018555	Sinnok, Rachel	1	80
FF018556	Sinnok, Ralph	1	40
FF018558	Tocktoo, Molly A.	2	120
FF018559	Weyiouanna, Alene	2	120
FF018560	Weyiouanna, Alex N.	1	40

<u>File No.</u>	<u>Applicant</u>	<u>Number of Parcels</u>	<u>Total Acres</u>
FF018561	Weyiouanna, Shirley	1	120
FF018562	Weyiouanna, Stephen	3	120
FF018571	Barr, Gilbert S.	1	160
FF018586	Cross, Milton R.	1	160
FF018610	Iyatunguk, Daniel	1	160
FF018612	Jones, Paul K.	1	80
FF018613	Jones, Rebecca	2	160
FF018614	Karman, Alice A.	1	160
FF018646	Barr, Martha A.	1	160
FF018647	Barr, Replogle	1	160
FF018649	Reuben, Alice B.	1	160
FF018650	Reuben, Sr., Jacob	1	160
FF018662	Kuzuguk, Bert W.	2	80
FF018663	Nayokpuk, Ida R.	1	40
FF018665	Ningeulook, Davey	1	120
FF018666	Ningeulook, Frieda	3	120
FF018667	Obruk, Esther	1	40
FF018668	Olanna, Katherine	3	160
FF018670	Sinnok, John	2	120
FF018672	Weyauvanna, Charles A.	2	80
FF018677	Kiyutelluk, Martha A.	2	160
FF018741	Weyiouana, Clifford	1	80
FF018763	Anderson, Mary E. Cross	1	23
FF018770	Kiyutelluk, Clayton W.	2	130
FF018772	Ningeulook, Marie	3	160
FF018773	Olanna, Emma	1	160
FF018774	Kokbok, Susie A. Weyauvanna	1	40
FF018775	Weyiouanna, Esau K.	1	40
FF018777	Weyiouanna, Nellie	1	160
FF018817	Olanna, Harold	1	160
FF019465	Olanna, Wilfred	1	160
FF064697	Barr, Fannie K.	1	80
FF064698	Pootoogooluk, Anna	2	120
FF064699	Ninealook, Jack H.	2	120
FF064700	Pootoogooluk, Sr., Alvin	3	120
FF064701	Goodhope, Sr., Fred	2	120
FF064702	Goodhope, Fannie M.	2	80
FF065973	Olanna, Irene	2	120
FF065974	Pootoogooluk, Harvey	1	60
FF065976	Kigrook, James R.	3	160
FF065977	Kokeok, Signa	3	160
FF065978	Nayokpuk, Elizabeth	1	80
FF065979	Nayokpuk, Herbert	1	40
FF065980	Ningealook, Marjorie	3	160
FF065982	Okpowruk, Willa	1	60
FF065983	Barr, Zaccheus, Wm.	2	120
FF083750	Ahgupuk, Annie A.	1	160

Total Applications: 104

Total Parcels: 166

Total Acres: 12,249.5

Source: Bureau of Land Management, U.S. Department of the Interior, Case File Activity Report, August 22, 1984.

Note: These case files are constantly being updated, and there will be some discrepancies.

Table 11: Land Status Summary

Current Landownership

Federal--National Park Service	2,783,810
Kikiktagruk Inupiat Corporation	1,280
Total	2,785,090

Native Land Applications

Bering Straits Native Corporation	1,920
NANA Regional Corporation	58,840
Kikiktagruk Inupiat Corporation	114,410
Inalik Village Corporation	27,367
Native allotments (104 allotments, 166 parcels)	12,250
Cemetery/historical sites--ANCSA, sec. 14(h)(1) (48 sites)	35,607
Total	250,394

Conflicting Applications

Bering Straits Native Corporation cemetery/historical site	1,920
NANA Regional Corporation and Kikiktagruk Inupiat Corporation	53,194
NANA Regional Corporation and Kikiktagruk Inupiat Corporation cemetery/historical sites	4,980
NANA Regional Corporation cemetery/historical sites	626
Kikiktagruk Inupiat Corporation cemetery/historical sites	2,033
Total	62,753

Submerged Lands/Tidelands

Arctic Lagoon	21,280
Cowpack Inlet and Lagoon	28,550
Ikpek Lagoon	27,020
Unnamed inlet west of Cape Espenberg	4,225
Nugnugaluktuk River and estuary	7,705
Total	88,780

Other Nonfederal Interests

Mining claims (unpatented)--41 lode, 38 placer

the preserve are hiking, cross-country skiing, and sport hunting. These uses are all compatible with the purposes of the preserve as long as access continues to be by traditional means and as long as the present number of cabins and facilities related to subsistence use or reindeer herding does not increase significantly.

Potential uses of non-NPS lands are for mining and mineral extraction or exploration and access to these sites. Other long-term uses may include visitor accommodations, lodges, and other recreation-related development. These uses would be compatible if they were in keeping with the purposes

and character of the preserve, based on a case-by-case evaluation. New structures and uses should be compatible with the surrounding landscape and the preserve as a whole. In the repair, replacement, or modification of existing structures, or the construction of new structures, the scale (size), materials, and color should be appropriate to the character of the preserve. New structures or modifications of existing structures should not impair the wilderness character or the scenic quality. Other potential uses are an expanded reindeer industry with an associated increase in facilities.

Incompatible uses would damage or destroy natural resources (vegetation, habitat, landforms, and paleontological resources) and cultural resources (such as old village sites, remains of exploration and mining activities, and prehistoric sites), as well as altering the present wilderness character of the preserve. New roads and airstrips would be incompatible, as would mining. Isolated temporary use cabins for subsistence purposes could be compatible in some areas, while in other unaltered natural areas even a single structure could be a change in the existing character and thus be incompatible. In some areas where several structures are clustered, such as Espenberg, additional structures could be compatible. However, more than five additional structures would alter the existing character of the area and would therefore be incompatible.

ADJACENT LANDOWNERSHIP

Lands adjacent to the preserve are owned primarily by the state of Alaska; the United States, with management by the Bureau of Land Management; and the Shishmaref Village Corporation. There are also two areas of active mining claims (the Rainbow and Utica areas). Alaska state lands, most of which have been tentatively approved, are primarily on the southwestern and eastern borders of the preserve. The largest area of BLM-managed lands is generally in the south-central portion of the Seward Peninsula and extends from the Bendeleben Mountains to the Noxapaga River valley and then north to Upper Taylor Creek. Other small unconnected tracts of BLM-managed lands are located between NPS lands and Shishmaref Village Corporation lands (about 94,080 acres), as well as 103,680 acres south of the southwestern portion of the preserve. The Park Service will work toward compatible management of adjacent lands.

ONGOING PROJECTS AND PROPOSALS AND EXTERNAL USE

Several ongoing projects and proposals may have an effect on the natural and cultural values of the preserve as well as general patterns of use.

Alaska Department of Natural Resources - Northwest Area Plan

The Alaska Department of Natural Resources is preparing a comprehensive land use plan for state lands in the Bering Straits Native Corporation and NANA Regional Corporation areas of northwest Alaska. The plan will identify state lands suitable for resource development, settlement, and

resource conservation. It will also address other regional land use management issues. The Park Service will work closely with the state in the preparation of the plan, especially for those lands adjacent to the preserve.

Bering Straits Regional Strategy

The Bering Straits regional strategy is a planning program that has objectives of establishing economic development policies and identifying projects appropriate for and consistent with local needs and conditions. Another objective is to assign regional priorities to proposed capital improvement projects so that these projects are in a better position to receive state funds. In addition, this program will facilitate the coordination of local, state, and federal plans and proposed economic development projects.

Interagency Fire Management Plan

The 1984 Alaska Interagency Fire Management Plan: Seward-Koyukuk Planning Area is concerned with 51,860 square miles of western and central Alaska. The plan establishes broad fire management strategies and encourages coordination among the many land managers and owners within the planning area in their approach to fire suppression.

Shishmaref Inlet Area

The Shishmaref Village Corporation has requested the Park Service to consider exchanging approximately 30,080 acres of land in two parcels, one along the lower Serpentine River and the other to the west along the Arctic Lagoon. The village corporation has requested these lands because of their subsistence value for hunting, fishing, and gathering; also one area near the Arctic Lagoon could be used as a source for sand and gravel. The proposed exchange area includes 35 parcels of land that have applications pending as native allotments and four parcels that have cemetery site and historical area applications. The lands proposed for exchange include prime shoreline along the Chukchi Sea that has high potential for cultural resources and visitor use, plus the Arctic Lagoon and Serpentine River. Other distinguishing resource values are sand and gravel in some sections along the Arctic Lagoon. Except for a general survey of these lands, no further action on this proposed exchange will be taken until submerged lands in the Shishmaref Inlet are identified so that there will be a clearer understanding of native, state, and federal landownership in the area.

Kikiktagruk Inupiat Corporation Proposed Land Exchange

The Kikiktagruk Inupiat Corporation (KIC) has proposed to exchange two sections (1,280 acres) of interimly conveyed lands within the preserve for an equal area of lands within Cape Krusenstern National Monument on or near Sheshalik Spit. The present KIC lands are vacant, and no change

in the current undeveloped condition is proposed. An unsuccessful oil exploration well was drilled at this site in 1978. The Park Service will continue to discuss the proposed land exchange with the corporation to see if a mutually agreeable exchange can be developed.

Potential Shishmaref Relocation

Since the mid 1970s when storms caused great damage to the village of Shishmaref, the residents have been studying moving the village to a less vulnerable location while protecting their current subsistence lifestyle. Although no moves are imminent, relocation continues to be a possibility. One relocation site is near Tin Creek on Shishmaref Inlet, south of the present village location. This site and other potential sites would put the village within 6 miles of the preserve boundary, which could increase use of the preserve by Shishmaref residents.

Potential Road from Ear Mountain to Shishmaref

Ear Mountain is one of the few sources of gravel and stone in the region. As such, the need may arise for a road to transport gravel and stone from Ear Mountain to Shishmaref or to the site of a relocated village. This road would cross the narrowest portion of the preserve (6 miles) and would require careful siting and surface preparation to minimize adverse impacts.

Offshore Oil Lease Sales

Two offshore oil lease sales may affect the preserve. The proposed state oil and gas lease sale 45 in the Hope Basin is immediately adjacent to the northwestern and northern boundaries of the preserve. Offshore oil exploration development and production could have adverse effects on the fragile preserve coastline, as well as waterfowl and marine mammals. The sale is scheduled for May 1989.

The second oil lease sale is sale 100 on the federal portion of the outer continental shelf. This sale is south of Nome in Norton Sound. Although this sale is not expected to have direct effects on the preserve, there could be indirect effects due to population growth and development. Population growth in Nome could result in more hunting or other uses on preserve lands.

Existing Roads and Road Improvements

Existing roads approach the preserve from Deering on the northeast and Nome on the south. The road from Deering follows the Inmachuk River valley and ends less than 5 miles from the preserve boundary. The Kougark Road from Nome is in good condition as far as the Kougark airstrip, 86 miles from Nome and some 30 miles south of the preserve boundary and 15 miles from the boundary to the northeast by way of the route to Deering. The Alaska Department of Transportation and Public

Facilities has plans to improve the Kougarok Road from the Kougarok airstrip to Taylor, about 20 miles. This road improvement currently seems to have a low priority statewide.

Kougarok Mountain Mineral Exploration

Anaconda Minerals Company has been exploring minerals at Kougarok Mountain, 15 miles south of the preserve. If this mine was ever developed, an access road would be developed and improved from the Kougarok airstrip to Kougarok Mountain. This road would most likely be 4 miles from the preserve at its closest point. Other Anaconda properties near the preserve boundary are at Ear Mountain and at the headwaters of the Arctic River. If mines at Ear Mountain were developed, an access road could be proposed across the preserve to either the Arctic Lagoon or Shishmaref Inlet.

PAST ACQUISITION ACTIVITIES AND CURRENT PROTECTION PROGRAM

No lands have been acquired since the preserve was established in 1980. There is no acquisition ceiling, nor has money been appropriated for land acquisition at Bering Land Bridge. This is the first land protection plan for the preserve.

SOCIOCULTURAL CHARACTERISTICS

The primary importance of the preserve to residents of nearby villages and northwest Alaska is as a source for subsistence food and fibers and as a place to continue a traditional lifestyle. Subsistence uses include hunting and gathering within the preserve. Seasonal hunting camps, with associated cabins, drying racks, and food caches, are present, along with access to these sites. Another traditional activity is reindeer herding.

Active mining areas that are adjacent to the preserve are remnants of major mining operations on the Seward Peninsula. These mining areas and the two areas of unpatented mining claims are generally small family operations that represent an important lifestyle to the owners and operators of the mines.

A third sociocultural characteristic of the preserve is the traditional healing, spiritual revitalization, and recreational activities of Serpentine Hot Springs. This site is important to both the native and nonnative communities. Continued use and maintenance of the present character of the site are primary concerns of those who now use the site.

PROTECTION ALTERNATIVES

EXISTING LAWS THAT PROVIDE LAND PROTECTION

Private resource development activities on private, state, and federal lands must meet applicable state and federal environmental protection standards. These standards are cooperatively enforced by the Alaska Departments of Environmental Conservation and Natural Resources, the U.S. Environmental Protection Agency, and the National Park Service.

Alaska National Interest Lands Conservation Act (ANILCA)

ANILCA is primarily directed to national interest lands. However, there are provisions that address federal-state cooperation to help protect nonfederal or other lands not designated to be in conservation system units. Section 907 specifically addresses private lands that have an affect on federal and state lands and provides that these lands may be cooperatively planned and managed as part of the Alaska Land Bank.

National Environmental Policy Act (NEPA) (42 USC 4321 et seq.)

NEPA requires the preparation of an environmental impact statement for proposed major federal actions that could have a significant effect on the environment, including projects that require federal permits or federal funding. Environmental impact statements include a statement of the environmental consequences of the proposed action, any unavoidable or adverse effects on the environment, an analysis of short-term versus long-term effects of the action, alternatives to the proposal, and documentation of public involvement.

Federal Water Pollution Control Act Amendments of 1972 (33 USC 1251)

Section 404 requires that dredge-and-fill permits be obtained from the U.S. Army Corps of Engineers for shoreline modification along navigable waterways. Types of projects that require permits are any modification of shorelines for a beach landing area or for beach stabilization, such as a seawall or bulkhead.

Mining in the Parks Act of 1976 (16 USC 21-54)

This act and its implementing regulations (36 CFR 9A) are intended to minimize resource impacts by requiring operators to adhere to an approved plan of operations. Operations are monitored by NPS staff for compliance.

Coastal Zone Management Act (16 USC 1451 et seq.)

This act and its amendments of 1976 and 1980 establish a national policy and program for the management, beneficial use, protection, and

development of the land and water resources of the nation's coastal zones. The state of Alaska has developed and adopted a statewide coastal management program. The statewide plan establishes broad policies and procedures for coast-related projects. The city of Nome has completed a separate coastal resource service area (CRSA) plan for its city limits. Draft CRSA plans have also been developed for areas of the NANA Regional Corporation and the Bering Straits Native Corporation. CRSA plans identify sensitive natural resource areas as well as areas meriting special attention and further study. When CRSA plans are approved, activities occurring on federal lands that directly affect state coastal resources are subject to a federal consistency determination.

National Historic Preservation Act of 1966 as amended

Section 106 of the act requires federal agencies to take into account the effects of federal or federally assisted undertakings on properties that are eligible to or listed on the National Register of Historic Places. The Advisory Council on Historic Preservation must also have an opportunity to comment on such undertakings.

ALTERNATIVE PROTECTION METHODS

A number of alternative methods are available for protecting the values of the preserve from potentially damaging activities on nonfederal lands. Each alternative is analyzed for its applicability, effectiveness, and sociocultural impacts on nonfederal landowners and communities. No single land protection method would be best for all nonfederal lands within the boundary. A combination of alternatives could be used to obtain the minimum interest necessary to achieve the purposes of the preserve.

Cooperative Agreements (including the Alaska Land Bank)

Cooperative agreements define administrative arrangements among two or more parties and usually include an exchange of services or other benefits. Cooperative agreements can be used to encourage the management of private lands in a manner consistent with purposes of the preserve. Agreements are flexible and may include provisions for access, facility use and maintenance, protection of property, and visitor services.

The Alaska Land Bank provides for agreements in which owners of lands conveyed under ANCSA agree to manage their lands consistently with the purposes of the preserve. Landowners receive exemptions from property taxes and certain corporate liabilities and also land management assistance. Native corporations receive two types of benefits from the land bank: first, land-banked properties are immune from judgments to recover corporate debts or penalties, and second, the National Park Service may offer technical assistance in matters of fire control, reduction of visitor trespass, resource and land use planning, and fish and wildlife management. The waiver of property taxes for lands in the land bank would provide no incentive to untaxed native corporations or owners of native allotments.

Agreements could be developed with the NANA Regional Corporation and the Bering Straits Native Corporation, owners of small private tracts, and the state.

Advantages of agreements include their flexibility, relative low cost, and the establishment of cooperative management arrangements. Disadvantages include procedural requirements, funds to continue agreements, the ability of one party to terminate the agreement on short notice, and the lack of permanent protection. The effectiveness of agreements depends on common or compatible goals between landowners. Agreements with individual landowners to ensure compatible management might be difficult to obtain and enforce because of a lack of incentives.

Specific impacts would be defined by the terms of each agreement. It is unlikely that any negative or adverse impacts would result.

Coordination with Other Agencies

Actions by federal and local agencies to permit, license, or provide financial assistance may have significant impacts on preserve resources. Under provisions of the National Environmental Policy Act, major federal actions are subject to public review processes to ensure adequate consideration of possible impacts on the environment. The draft CRSA plans for the NANA and Bering Straits corporations also provide opportunities for review of permit and funding activities that may have a significant impact on preserve resources.

As a concerned land manager and neighbor, the Park Service can ensure that other agencies are fully aware of any impacts that proposed actions could have on preserve resources. Participation in public hearings and review processes is one means for the Park Service to express its concerns. Coordination also may be improved by developing memorandums of understanding or by requesting agencies to notify the Park Service in advance when certain actions are being considered. Participation by the Park Service in project designs, locations, and operating requirements for new construction wherever possible would help minimize impacts.

Coordination would particularly apply to state lands and lands outside the unit, and the effectiveness would depend on similar or common goals of agencies. Coordination would usually involve public notice and participation. It is unlikely that negative or adverse impacts would result.

Regulations

To prevent the loss of preserve resources, the federal government has authority to regulate private lands. For example, the National Park Service can regulate mining to protect water quality in the preserve.

Regulations could be applied to activities on small private tracts, native corporation lands, mining claims, and state lands. Regulations would generally not prohibit uses that are inconsistent with the purposes of the

preserve; they would usually only mitigate, not eliminate, impacts. Therefore, regulations usually would not fully achieve purposes of the preserve.

Regulations would restrict the ability of owners to freely use their lands, and the owners would not receive compensation for these restrictions. Mine operators might be restricted to the point of not being able to operate, and they would receive no compensation. Regulation of state lands could affect further uses of these lands.

Easement Acquisition

Landownership may be envisioned as a package of rights. Easements convey only some of those rights from one owner to another, while other rights of ownership remain unchanged. Easements can be positive (for example, conveying a right of access) or negative (limiting specific uses of the land). Specific easement terms can be developed to fit the topography, vegetation, visibility, and character of existing or potential developments.

Easements can be acquired to ensure the preservation of scenic views, to maintain compatible land uses, and to provide public access. An easement remains with the land as an encumbrance when the land is transferred to another owner. The amount of consideration or payment depends upon the interest being acquired.

Easements can be acquired for small private tracts where some, but not all, existing or potential uses are compatible with the purposes of the preserve. Easements are extremely flexible, and they could be drafted to fit the specific characteristics of the land and the special concerns of the owner. Easements enable specific aspects and values to be protected while the land remains in private ownership and use. There are additional long-term costs to the Park Service to monitor and enforce the conditions and terms of easement provisions.

The sociocultural effects of easements on individuals as well as on the National Park Service, would vary, depending on the rights acquired. In the majority of cases, an easement would continue the current conditions while compensating owners for the loss of potential uses.

Fee Acquisition

When all of the interests in land are acquired, it is owned in fee simple. Methods of acquisition include donation, exchange, and purchase.

Fee acquisition could be employed for native corporation lands, patented mining claims, and small private tracts. Fee acquisition is most often used when the land is needed for facility development or intensive public use, when it must be maintained in pristine natural condition (thus precluding reasonable private use), when it is owned by individuals who do not wish to sell a less-than-fee interest, or when other alternatives would not be cost-effective.

Fee acquisition would ensure the achievement of legislative purposes; however, it could be expensive unless land exchanges or donations were made. Exchanges would depend upon the availability of comparable lands outside the boundary.

Acquisition of native corporation lands by exchange would not result in a net loss of corporation lands; however, fee-simple purchase would result in a loss of lands. Individual landowners could be adversely affected by a loss of livelihood, loss of home, problems of moving, and inability to will land to their heirs. However, ANILCA contains several provisions that mitigate the severity of these impacts. For example, sellers of improved noncommercial property could retain a right of continued use or occupancy for a set period of time or for the lifetime of the owner or surviving spouse. All sellers would be fairly compensated for their properties, and land exchanges might be available if the owners preferred. Native allottees who used their lands for subsistence purposes could sell the lands or exchange them for lands of equal value outside the boundary and could continue to use the preserve for subsistence activities. Acquisition of active claims could affect local mining employment; however, no claims within the preserve are expected to be operating in 1985.

METHODS OF ACQUISITION

There are three primary methods of acquisition of fee and less-than-fee interests in lands: donation, purchase, and exchange.

Donation

Landowners may be motivated to donate their property or interests in the land to achieve conservation objectives. Tax benefits of donation also may be an important incentive. Donations of fee are deductible from taxable income. Easement donations also may provide deductions from taxable income, but they are subject to certain Internal Revenue Service requirements to qualify as charitable contributions. Landowners are encouraged to consult their accountants or tax attorneys to discuss the advantages of donations.

Exchange

Sections 1302(c) and (h) of ANILCA allow for land exchanges as a method of land acquisition with the consent of the landowner. In evaluating land exchanges, the National Park Service will consider the relative values of parcels of land to be exchanged as well as the general public interest. Relative values and the public interest are defined, in part, to include the following factors:

resource values, such as wildlife or migratory bird habitat, nesting or fawning areas, or archeological sites

subsistence use areas and access

potential public use areas or access points

All lands will be surveyed for cultural resources before exchange. If any significant resources are identified, measures will be taken to ensure their protection.

Lands to be exchanged must be located within Alaska and must be of approximately equal value. Differences in value may be resolved by making cash payments. The National Park Service will also consider other federal lands within the authorized boundary as potential exchange lands to consolidate NPS jurisdiction so that lands can be in more manageable units.

Other federal lands in Alaska that become surplus to agency needs would normally go through disposal procedures, including public sale. The National Park Service will work with the Bureau of Land Management and the General Services Administration to determine if any additional federal lands may be available for exchange purposes.

Purchase

Acquisition by purchase requires funds to be appropriated by Congress or donated from private sources. Further funding for purchases depends primarily on future appropriations. Potential donations of funds or purchases by individuals or organizations interested in holding land for conservation purposes will be encouraged.

RELINQUISHMENT

Lands that have been selected by native corporations may be relinquished, resulting in present federal lands remaining in federal ownership and under management by the National Park Service. The affected corporation may use the acreage being relinquished to acquire other selected lands outside the preserve, because the native corporations have selected more lands than they are entitled to acquire.

BOUNDARY ADJUSTMENTS

Several boundary adjustments are being considered as part of this "Land Protection Plan," pursuant to ANILCA, section 103(c). This section states, "Whenever possible boundaries must follow hydrographic divides or embrace other topographic or natural features." These boundary adjustments must not increase or decrease the amount of land within any conservation system unit by more than 23,000 acres.

RECOMMENDATIONS

The recommended land protection approaches for nonfederal lands are listed below in order of priority (see the Land Protection Priorities map). The minimum interest needed for protection, justification, and proposed method of acquisition are given. Priorities may be readjusted if compatible uses or hardship needs arise. The actual means of acquisition of lands or interests in lands may change through negotiation. If acquisition of lands is appropriate, an exchange is the preferred method (see the Boundary Adjustments and Land Exchanges map). Donation will be encouraged. Acquisition by purchase will be limited by scarcity of funds. Condemnation is usually avoided, although it may be used in emergencies to prevent imminent land use activities that would severely damage the integrity of unit values.

High Priorities

1. Acquire fee-simple interest or protective easements on any nonfederal lands (or lands that may be conveyed in the future) with significant natural and cultural resources that are not now adequately protected. To date no such lands have been identified. If the Bering Straits Native Corporation selection (FF33837, 1,920 acres) for Serpentine Hot Springs is conveyed, it will be acquired in fee through exchange. If and when other such lands are identified, protection alternatives will be evaluated and protection measures taken.
2. Acquire fee-simple interest in essential public use areas. These areas will be used for public access and camping. Existing uses and owners will be accommodated as much as possible. Specific tracts to be acquired are at the Devil Mountain Lakes and Killeak Lakes (FF018545 parcel A, FF016806, FF000049 parcel B, FF000072 parcel B, and FF017662). Other areas with visitor interest and use potential are along the beaches of the northwest coast of the preserve. These areas will be considered for acquisition as public use patterns and trends develop.
3. Acquire administrative sites in Nome, Shishmaref, and Deering. Fee-simple acquisition and leasing of native corporation and private lands will be evaluated, as will cooperative agreements with other organizations having compatible space needs. Specific administrative needs in Nome are discussed in the "Operations" section of the proposal. Approximately 1 acre of land will be acquired in Shishmaref and 1 acre in Deering.
4. Retain fee-simple interest in lands selected as cemetery/historical sites (ANCSA, sec. 14(h)(1)) through relinquishment by regional native corporations.
5. Modify the preserve boundary near the Continental Divide and Midnight Mountain to ensure the protection of scenic views and the watershed of the Serpentine Hot Springs valley and to align the boundary with topographic features.

Moderate Priorities

6. Ensure that other nonfederal lands within preserve, plus lands adjacent to it that have the potential to affect preserve values, are managed in a manner that is compatible with the purposes of the preserve. Cooperative agreements and the Alaska Land Bank are available methods that will continue to be used to achieve compatible management. If incompatible uses are proposed on nonfederal lands within the preserve, acquisition of sufficient interests to prevent any adverse effects on preserve resources will be considered.

7. Acquire the mineral interest, if valid, of the mining claim group adjacent to Serpentine Hot Springs to protect the natural, undeveloped character of the area.

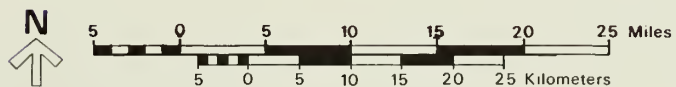
8. If proposals are made to actively mine the Humboldt Creek mining claim group, the Park Service will ensure that resource values (water and air quality, vegetation, wildlife, fish, and cultural resources) are protected under 36 CFR 9A. Any development of the mining claim area will be subject to NPS approval of a plan of operations that will address the minimizing of effects and the preventing of unacceptable effects on preserve resources.

9. Negotiate with the state, the Bureau of Land Management, and the Shishmaref Village Corporation to complete boundary adjustments and land exchanges. This recommendation involves three areas. The first area is the "stair-step" segments of the eastern boundary, and negotiations will be undertaken with the state to adjust the boundary in this area to conform with topographic features. The other two areas involve the Shishmaref Inlet vicinity and the southwestern portion of the preserve, where several small tracts of land exist. In the Shishmaref Inlet area, the Park Service will negotiate with the Shishmaref Village Corporation and the Bureau of Land Management to combine these small tracts into larger, more manageable units. In the southwestern portion of the preserve, the Park Service will undertake negotiations with the Bureau of Land Management and the state to facilitate management. Both land exchanges and boundary adjustments will be considered for the latter two areas.



-  HIGH PRIORITIES (also includes administrative sites in Nome, Shishmaref, and Deering)
-  MODERATE PRIORITIES

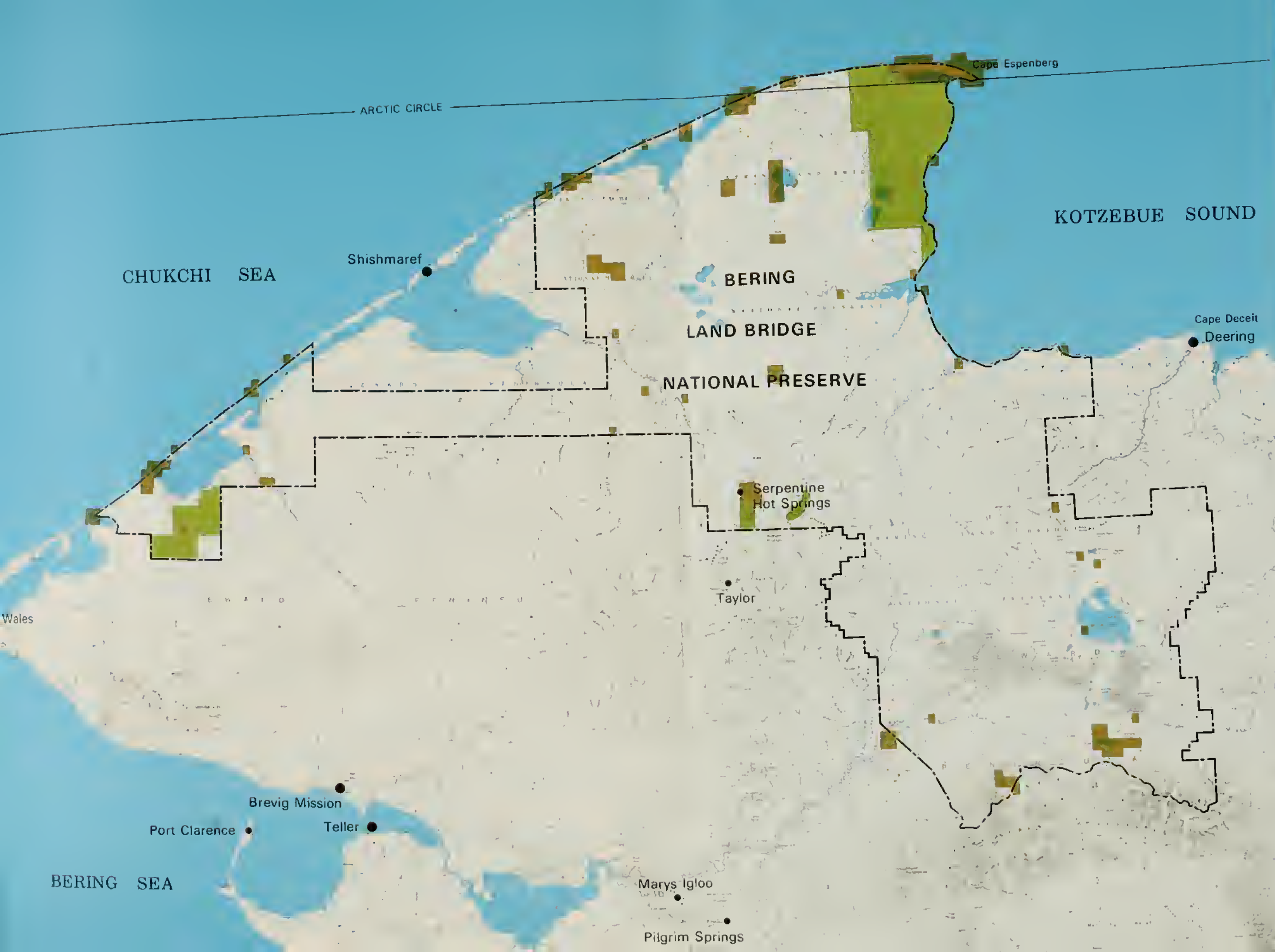
NOTE: BOUNDARY ADJUSTMENT AND POTENTIAL LAND EXCHANGE AREAS ARE SHOWN ON BOUNDARY ADJUSTMENTS AND LAND EXCHANGES MAP.



LAND PROTECTION PRIORITIES

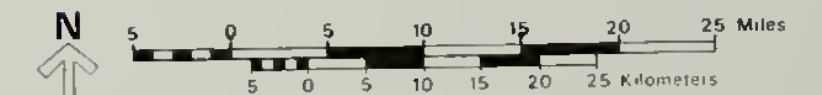
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- HIGH PRIORITIES (also includes administrative sites in Nome, Shishmaref, and Deering)
- MODERATE PRIORITIES

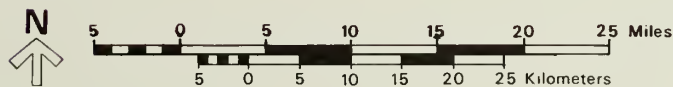
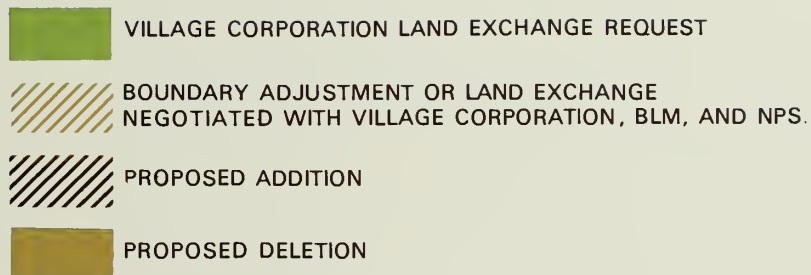
NOTE: BOUNDARY ADJUSTMENT AND POTENTIAL LAND EXCHANGE AREAS ARE SHOWN ON BOUNDARY ADJUSTMENTS AND LAND EXCHANGES MAP.



LAND PROTECTION PRIORITIES

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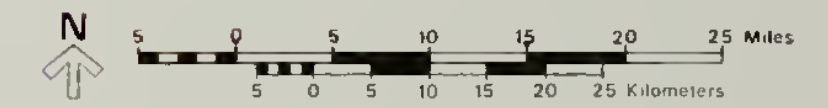
BOUNDARY ADJUSTMENTS AND LAND EXCHANGES

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-  VILLAGE CORPORATION LAND EXCHANGE REQUEST
-  BOUNDARY ADJUSTMENT OR LAND EXCHANGE NEGOTIATED WITH VILLAGE CORPORATION, BLM, AND NPS.
-  PROPOSED ADDITION
-  PROPOSED DELETION



**BOUNDARY ADJUSTMENTS
AND LAND EXCHANGES**

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COMPLIANCE

In accordance with section 910 of ANILCA, proposed actions of the land protection plan involving land exchanges with village, native, and regional corporations are excluded from NEPA considerations. The proposed land exchange with the Shishmaref Village Corporation is included in this category.

Other actions of the land protection plan that propose no significant change to existing land or visitor use are categorically excluded from NEPA considerations (516 DM 6, appendix 7.4) and are not listed as exceptions in the Department of the Interior implementing procedures (516 DM 2, appendix 2). The recommendations for native allotments, mining claims, and land exchanges would not significantly change existing land or visitor use, and consequently are excluded from NEPA compliance provisions. Boundary adjustments in the Serpentine Hot Springs area would require compliance with NEPA, and the effects of such actions are addressed in the "Environmental Consequences" section of this document.



INTRODUCTION

The wilderness suitability of lands within Bering Land Bridge National Preserve is to be reviewed pursuant to section 1317(a) of ANILCA. Section 1317(b) specifies that this review will be conducted by the secretary of the interior and that the president will advise the U.S. Senate and House of Representatives of the recommendations, in accordance with the provisions of sections 3(c) and (d) of the Wilderness Act. The review is to be completed by December 2, 1985.

The following suitability review meets the requirements of ANILCA. Actual recommendations on whether to designate suitable areas of the preserve as wilderness will be made following approval of a general management plan, at which time an environmental impact statement will be prepared. The president is to make recommendations to Congress by December 2, 1987.

WILDERNESS DEFINITION

The Wilderness Act of 1964 defines wilderness as follows:

A wilderness, in contrast with those areas where man and his own works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain. An area of wilderness is further defined to mean in this Act an area of undeveloped Federal land retaining its primeval character and influence, which is protected and managed so as to preserve its natural conditions and which: (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.

INTERIM MANAGEMENT OF SUITABLE LANDS

The federal lands determined as suitable through this review will be managed as wilderness until the president makes recommendations to Congress. Areas recommended for designation as wilderness will continue to be managed in this way until Congress acts on the recommendations. These areas will be managed under the requirements of ANILCA (title VIII) that allow for subsistence use. No boundary adjustments affecting existing federal lands in these areas will be made prior to the president's recommendations to the Congress.

WILDERNESS REVIEW CRITERIA

Wilderness suitability criteria have been developed that are based on the Wilderness Act's definition of wilderness and the specific provisions of ANILCA that relate to wilderness areas. These criteria are concerned primarily with the physical character of the land and current land status, and they were applied to all lands in the preserve to determine their suitability. Other factors such as appropriateness for management as wilderness and state and local concerns with wilderness management will be considered when the wilderness recommendation is formulated, following the approval of a general management plan. The following criteria have been used in this evaluation of suitability.

Land Status

Federal land - suitable

Federal land under application, unpatented mining claims, and cemetery and historical sites - unsuitable if conveyed out of federal ownership; suitable if retained in federal ownership

Federal land interimly conveyed or tentatively approved for selection - unsuitable

Patented land - unsuitable

Nonfederal ownership of the mineral estate - unsuitable

Mining Development

Areas with minor past activities and disturbance - suitable

Areas with major past and current activities - unsuitable

Roads and All-Terrain Vehicle (ATV) Trails

Unimproved and unused or little used roads or trails - suitable

Roads improved by mechanical means and regularly used by motorized vehicles - unsuitable

Airstrips

Airstrips unimproved or minimally improved and maintained by hand - suitable

Improved and maintained airstrips - unsuitable

Cabins

Uninhabited structures or hunter, hiker, and patrol cabins - suitable

Structures inhabited as a primary place of residence - unsuitable

NPS Development

Trails and backcountry cabins - suitable

Existing roads, campgrounds, lodges, ranger stations, etc. - unsuitable

Size of Units

Areas greater than 5,000 acres, and adjacent to existing wilderness, or small areas of manageable size - suitable

Areas less than 5,000 acres or of unmanageable size - unsuitable

Historic and Archeological Sites

Sites not currently used for primary visitor use - suitable

Primary visitor attractions with development - unsuitable

SUITABILITY ANALYSIS

This suitability analysis treats the preserve as a whole. In determining whether the minimum suitability criteria are met, it has not been necessary to divide the area into units, such as watersheds, for separate consideration. Such a division may be necessary in preparing future recommendations where the feasibility of actual management as wilderness must be considered.

LAND STATUS

Approximately 2,596,170 acres or 93 percent of the preserve is federally owned land on which there are no pending applications or other claims (see Land Status map). However, 187,641 acres (7 percent) are subject to application by native village or regional corporations (including overlapping applications made by both) or for unresolved cemetery and historical site selections, native small tract applications, or unpatented mining claims. There is one small portion of interimly conveyed village corporation land (1,280 acres) northwest of the Killeak Lakes, but there are no other private or patented lands.

MINING DEVELOPMENT

Unpatented mining claims are located on portions of seven sections of federal land in the immediate vicinity and to the east of Serpentine Hot Springs. The claims are clustered in two separately owned groups. Very little exploratory activity has taken place. The validity of the group of claims immediately south of Serpentine Hot Springs is being challenged by the National Park Service.

ROADS

There are no improved or unimproved roads in the preserve. ANILCA section 201(2) allows the continuation of customary patterns and modes of travel within a 100-foot-wide corridor along the existing route from Deering to the Taylor Highway during periods of adequate snow cover. Although not individually identified in ANILCA, several other routes have been used for winter travel between villages or to fishing camps and reindeer herding operations. In all cases the usual mode of travel has been by dogsled or snowmachine over adequate snow cover or on frozen rivers. Along some portions of the route from Deering to the Taylor Highway, along a route from Taylor to Serpentine Hot Springs, and in some other isolated areas there is evidence of tracked vehicles having been used without adequate snow cover or when the ground was not solidly frozen.

AIRSTRIPS

There are two unimproved "bush" airstrips within the preserve, one at Serpentine Hot Springs and the other near Ear Mountain.

CABINS

No permanently occupied cabins are within the preserve. Several seasonally occupied summer fish cabins and maintained winter shelter cabins lie along the Chukchi Sea coast; most of these are on native allotment applications or are associated with reindeer herding operations. Two structures at Serpentine Hot Springs are used occasionally by visitors to the hot springs and by subsistence users. Several historic cabins associated with former mining activities (e.g., along Fairhaven Ditch) are still standing but are in a state of disrepair.

NPS DEVELOPMENT

No NPS development has taken place within the preserve. The structures occasionally occupied at Serpentine Hot Springs are used as patrol cabins and are not considered seasonally occupied backcountry cabins.

SIZE OF THE UNIT

The total size of the preserve is 2,785,090 acres.

HISTORIC AND ARCHEOLOGICAL SITES

The status of a number of cemetery sites and historic places is yet to be determined. Areas that are eventually conveyed will no longer be federal land and will, therefore, be unsuitable.

Serpentine Hot Springs is the only historic site that currently has visitor use and development. Presumably this site will remain in federal ownership because the application for the area by the Bering Straits Native Corporation under ANCSA has been denied. However, that decision is now being appealed. Currently, visitors arrive by either snowmachine or airplane for short visits for ritual healing or recreational hot springs bathing. Because both transportation modes would continue to be acceptable with or without wilderness designation (ANILCA 1110(a)), and structures may be allowed in wilderness (ANILCA 1315(c)), the Serpentine Hot Springs area is currently suitable for wilderness.

CONCLUSION

Based on the analysis of the suitability criteria, the following three categories of land in Bering Land Bridge National Preserve have been identified with respect to wilderness suitability (see Wilderness Suitability map):

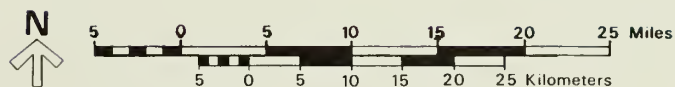
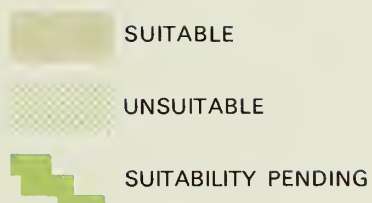
Federal lands on which there are no pending applications--All these lands are considered suitable for wilderness, and they will be considered in making an eventual recommendation.

Federal lands on which applications are pending and which could as a result be conveyed out of federal ownership--All of these lands are considered interimly suitable for wilderness but will become unsuitable if conveyed to the applicant. Interimly conveyed lands that are suitable for wilderness will continue to be considered for eventual designation but will automatically be dropped from consideration if and when they are conveyed out of federal ownership. No lands on which these applications are still pending will be recommended for wilderness designation.

Nonfederal lands--The 1,280 acres of interimly conveyed land owned by Kikiktagruk Inupiat Corporation are not suitable for wilderness designation.

In summary, virtually all of Bering Land Bridge National Preserve is considered suitable for wilderness. As various applications by native groups are resolved, however, and as some lands are conveyed out of federal ownership, those particular lands will no longer be suitable.

Changes in land status occurring or likely to occur between now and when the recommendations are made to the president and Congress will be reflected in the final recommendations. A determination of suitability does not affect any pending selections or other prior existing land disposal actions. All wilderness recommendations and subsequent designations will be made subject to valid existing rights.



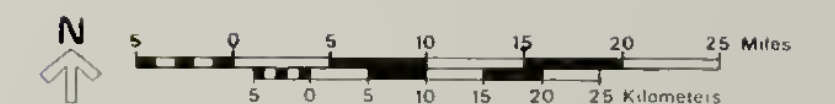
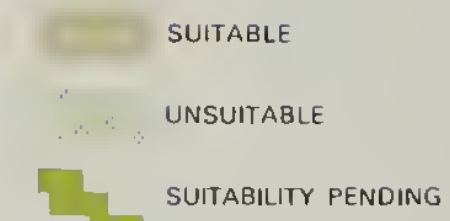
BERING

WILDERNESS SUITABILITY

BERING LAND BRIDGE NATIONAL PRESERVE

United States Department of the Interior/National Park Service

DSC / MARCH 1985 / 128-47,345A



WILDERNESS SUITABILITY

BERING LAND BRIDGE NATIONAL PRESERVE

United States Department of the Interior/National Park Service
DSC / MARCH 1985 / 12B-47,345A



CONSULTATION AND COORDINATION
APPENDICES
SELECTED BIBLIOGRAPHY
PLANNING TEAM

CONSULTATION AND COORDINATION

Many activities have taken place throughout the general management planning process for Bering Land Bridge. These include contacts with the general public, agencies, and organizations. The planning process began in March 1984 with an announcement in the Federal Register and an open meeting in Anchorage. Additional public meetings were held in Shishmaref, Wales, Deering, and Nome in April and May. The purpose of these meetings was to identify issues that should be addressed in the general management plan. These meetings helped the superintendent and park planners to better understand concerns relating to the establishment and management of the preserve.

Follow-up meetings were held as necessary with organizations such as the Kawerak Board, Bering Straits Coastal Resource Service Area Board, and the Alaska Reindeer Committee, as well as with federal, state, and regional agencies, local organizations, and landowners who would be affected by plan implementation. A newsletter reviewing the status of planning was published in July 1984.

Public meetings on this Draft General Management Plan/Environmental Assessment will be held in Nome, Shishmaref, Deering, Wales, and Anchorage. In addition, consultation will continue with the Alaska Land Use Council; federal, state, and local agencies; native corporations; concerned local, state, and national organizations; and interested individuals.

The following agencies and organizations have been contacted during the planning process:

Federal Agencies

- Department of Agriculture
 - Soil Conservation Service
- Department of the Interior
 - Bureau of Indian Affairs
 - Bureau of Land Management
 - U.S. Fish and Wildlife Service

Alaska State Agencies

- Advisory Commission on Federal Areas
- Alaska Reindeer Council
- Department of Community and Regional Affairs
- Department of Fish and Game
- Department of Natural Resources
- Department of Transportation and Public Facilities
- Office of Governmental Coordination

Local Agencies and Native Corporations

Bering Straits Native Corporation
Bering Straits Coastal Resource Service Area Board
Deering, City of
Deering IRA Council
Kawerak, Inc.
Kikiktagruk Inupiat Corporation
Maniilaq Association
NANA Coastal Resource Service Area Board
NANA Regional Corporation
Nome, City of
Nome Visitor Information and Convention Bureau
Shishmaref, City of
Shishmaref IRA Council
Shishmaref Village Corporation
Sitnasauk, Inc.
Wales, City of
Wales IRA Council
Wales Village Corporation

Organizations

Alaska Federation of Natives
Audubon Society
Carrie McLain Museum
Nome Chamber of Commerce
Northwest Community College
Reindeer Herders Association
Sierra Club

APPENDIX A: SUMMARY OF ANILCA PROVISIONS

The provisions of ANILCA that are most relevant to Bering Land Bridge National Preserve are summarized below:

Section 101(c), Subsistence Opportunity: It is the intent and purpose of this act to provide the opportunity for rural residents engaged in a subsistence way of life to continue to do so, as long as such use is consistent with the purposes of the preserve. Subsistence use will not be prohibited unless, after local public hearings, such use is found to be detrimental to the area's resource values.

Section 103(b), Boundary Adjustments: Minor boundary adjustments are authorized that will not increase or decrease the total preserve acreage by more than 23,000 acres. Whenever possible, boundaries will follow hydrographic divides or embrace other topographic or natural features.

Section 103(c), Inholdings and Regulations: The preserve was established subject to valid existing rights, and no lands "conveyed to the State, to any Native Corporation, or to any private party shall be subject to regulations applicable solely to public lands within such units."

Section 201(2), Establishment of Bering Land Bridge National Preserve: The preserve will be managed for the following purposes, among others:

- to protect and interpret examples of arctic plant communities, volcanic lava flows, ash explosions, coastal formations, and other geologic processes

- to protect habitat for internationally significant populations of migratory birds

- to protect habitat for and populations of fish and wildlife (marine mammals, brown and grizzly bears, moose, and wolves)

- to provide for archeological and paleontological study of plant and animal migrations, including man, between North America and Asia

- to continue reindeer grazing use, including necessary equipment and facilities

- to protect the viability of subsistence resources

- to provide for outdoor recreation and environmental education, including public access for recreation at Serpentine Hot Springs

- to continue customary patterns and modes of winter travel when there is adequate snow cover from Deering to the Taylor Highway

Section 203, Hunting and Subsistence: Subsistence uses by local residents and hunting will be permitted in the preserve. No entrance fees will be charged.

Section 206, Withdrawal from Mining: Subject to valid existing rights, federal lands are withdrawn from appropriation or disposal under public land laws, including location, entry, and patent under U.S. mining laws, disposition under the mineral leasing laws, and from future selection by the state and native corporations.

Title VIII, Subsistence Management and Use: This title provides for subsistence management and use, and it authorizes the state to enact and implement laws of general applicability. The title covers a broad range of particulars, including the policy of providing opportunities for rural residents to engage in a subsistence way of life, the definition of what subsistence use means, and a distinction between healthy populations of fish and wildlife in all conservation units and natural and healthy populations within parks and monuments. Priority criteria for determining subsistence users, and a provision for local and regional participation in the consideration of subsistence matters, are also outlined. Judicial enforcement, subsistence resource commissions, land use decisions, access, and closure to subsistence uses are also discussed.

Section 907, Alaska Land Bank: ANILCA establishes an Alaska Land Bank program to enhance the quantity and quality of Alaska's renewable resources and to facilitate the coordinated management and protection of federal, state, native, and private lands. Any private landowner is authorized to enter into a written agreement with the secretary of the interior if his lands adjoin, or his use of lands would directly affect, federal or state lands. Benefits of participation include immunity from real property taxes and assessments unless the land is leased or developed as defined in ANCSA, section 21(d). Also the landowner may receive technical and other assistance with respect to fire control, trespass control, resource and land use planning, the management of fish and wildlife, and the protection, maintenance, and enhancement of any special values of the land subject to the agreement, all with or without reimbursement as agreed upon by the parties.

Section 1010, Mineral Resource Assessment Program: The oil, gas, and other mineral potential of all public lands in the state of Alaska are to be assessed. The assessments will take place notwithstanding any restrictions under the Wilderness Act, but will not occur during nesting, calving, spawning, or such other times as fish and wildlife in the specific area may be especially vulnerable to such activities.

Section 1104, Transportation and Utility Systems: Procedures are established for reviewing requests for rights-of-way for any transportation or utility system across public lands, and criteria are established for approving or disapproving such requests.

Section 1109, Valid Existing Rights-of-Access: Valid existing rights-of-access will not be adversely affected.

Section 1110, Special Access and Access to Inholdings: The use of snowmachines, motorboats, airplanes, and nonmotorized surface transportation will be permitted for traditional activities and for travel to and from villages and homesites.

Section 1111, Temporary Access: The state or a private landowner will be allowed temporary access across the preserve for purposes of survey, geophysical, exploratory, or other temporary uses that will not permanently harm the resources of the preserve.

Section 1201, Alaska Land Use Council: The Alaska Land Use Council is established and directed to conduct studies and advise its members with respect to ongoing, planned, and proposed land and resource uses.

Section 1301, Management Plans: Within five years from the enactment of ANILCA (December 2, 1980) a conservation and management plan is to be submitted to Congress for each new unit of the national park system or any unit to which additions were made by ANILCA. Each plan will consider the purposes of the unit, its resources, activities adjacent to the unit, and opportunities to provide for continuing traditional activities of Alaska natives. The plans will contain maps, programs, and methods for managing resources; a description of proposed development; a plan of access and circulation; a description of programs and methods for protecting the cultural heritage of resident individuals and for encouraging their employment; and a plan for land acquisition and boundary adjustments. Each plan will include a description of private lands within or surrounding the area and their existing or proposed uses, as well as cooperative agreements that could or should be entered into to improve the management of the unit and the activities carried out on the private lands. In developing, preparing, and revising the plans, public hearings will be held, and the participation of the Alaska Land Use Council, the state of Alaska, native corporations, and concerned organizations and individuals will be permitted.

Sections 1302(a) and (b), Land Acquisition Authority: Lands may be acquired by purchase, donation, exchange, or otherwise. However, lands owned by the state or its political subdivisions, by native corporations or groups, or by occupants with existing prior rights or a spouse or lineal descendants may only be acquired with the consent of the owner. Lands may not be acquired if they have been conveyed pursuant to ANCSA, section 14(c)(1), unless the secretary of the interior determines that activities on the tract are or will be detrimental to the purposes of the unit. Lands contiguous to the preserve that are owned or selected by the state may be acquired by the secretary through donation or exchange.

Section 1303, Use of Cabins and Other Structures on NPS Lands: Cabins or other structures existing prior to December 18, 1973, may be used and occupied by the claimant on the basis of a five-year, renewable, nontransferable permit. Cabins or other structures occupied between December 18, 1973, and December 1, 1978, may be used and occupied on the basis of one-year, nontransferable, nonrenewable permits. On a case-by-case basis, the secretary may extend the permit term beyond one year.

Section 1304, Archeological and Paleontological Sites: Bering Land Bridge National Preserve is authorized to acquire by purchase, with the consent of the owner, or by donation or exchange any significant archeological or paleontological sites located outside the present preserve boundaries.

Such acquisitions are not constrained by authorized area acreages established in title I, but they must not exceed a total of 7,500 acres. The sites covered by this provision must be associated with the resources inside the preserve. No condemnation authority is included. Acquisition must be accompanied by public notice and notification of Congress.

Section 1306, Administrative Sites and Visitor Facilities: The secretary of the interior may lease or acquire by purchase, donation, exchange, or any other means (except condemnation) real property (other than federal land), office space, housing, and other facilities outside the preserve boundaries that are necessary for the administration of the unit. This section also authorizes memorandums of agreement with other federal agency landowners. This authority provides the means for establishing administrative facilities outside the preserve if necessary for the preservation, protection, and proper management of the preserve.

Section 1307, Revenue-Producing Visitor Services: The secretary will permit persons adequately operating visitor service businesses on or before January 1, 1979, to continue to operate such services and similar types of services. In selecting persons to provide visitor services--except guiding for sport fishing and hunting--the secretary is authorized to give preference to the native corporation directly affected by the establishment of the unit and to local residents.

Section 1308, Local Hire Program: Local persons with special knowledge and skills concerning the resources of a unit and the management thereof may be hired for any position within the unit. In selecting these persons, civil service laws and regulations, employment preference, and numerical limitation may be disregarded.

Section 1310, Navigation Aids and Other Facilities: This section provides "reasonable access to, and operation and maintenance of, existing air and water navigation aids, communications sites and related facilities, and existing facilities for weather, climate, and fisheries research and monitoring," and for national defense purposes. The establishment, operation, and management of new facilities is also allowed.

Section 1313, Administration of National Preserves: Preserves will be managed in the same manner as national parks except that the taking of fish and wildlife for both sport purposes and subsistence uses, and trapping, will be allowed under applicable state and federal laws and regulations.

Section 1314, Taking of Fish and Wildlife: The state of Alaska has the responsibility and authority for managing fish and wildlife on public lands, and the secretary of the interior has responsibility and authority over the management of public lands. Areas designated as national parks or monuments will be closed to the taking of wildlife, but fishing will be permitted according to applicable state and federal laws. Subsistence uses by local, rural residents will also be permitted.

Sections 1315(c) and (d), Wilderness Management--Public Use Cabins: Section (c) provides that public use cabins within wilderness designated by ANILCA may continue to be used, maintained, and replaced. Section

(d) provides for the construction and maintenance of new public use cabins and shelters if such construction is harmonious with the wilderness setting.

Section 1316, Allowed Uses--Temporary Facilities: The continued use and the future establishment and use of temporary campsites, tent platforms, shelters, and other temporary facilities directly and necessarily related to the taking of fish and wildlife are allowed. The section also provides measures for construction, use, termination, and prohibition.

Section 1317, Wilderness Review: All lands within national park system units that are not designated as wilderness are to be reviewed by December 2, 1985, as to their suitability or unsuitability for preservation as wilderness. The results of the review and recommendations will be sent to the president, who will make recommendations to Congress.

Section 1318, Cultural Assistance Program: The secretary of the interior may, when requested, provide advice, assistance, and technical expertise to a native corporation or native group regarding the preservation, display, and interpretation of cultural resources.

Section 1415, Relinquishment of State or Native Selections: Native corporations may relinquish those portions of selected townships which lie within the boundaries of conservation units without affecting those portions that lie outside and without affecting the total entitlement of the corporation. This is an incentive for making relinquishments that can be of benefit to both the preserve and the corporation.

Section 1501, Areas Subject to the National Need Recommendation Process: Units of the national park system are exempt from the national need for minerals, which would allow for exploration, development, or extraction.

**PART 13—NATIONAL PARK SYSTEM
UNITS IN ALASKA****Subpart A—Public Use and Recreation**

- Sec.
- 13.1 Definitions.
 - 13.2 Applicability and scope.
 - 13.3 Penalties.
 - 13.4 Information collection.
 - 13.10 Snowmachines.
 - 13.11 Motorboats.
 - 13.12 Nonmotorized surface transportation.
 - 13.13 Aircraft.
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Authority: Sec. 3 of the Act of August 15, 1916 (39 Stat. 535, as amended (16 U.S.C. 3); 16 U.S.C. 1, 1a-1, 1c, 462); Alaska National Interest Lands Conservation Act (ANILCA), 94 Stat. 2371 and 1281; Pub. L. No. 96-487 (December 2, 1980); and the Paperwork Reduction Act of 1980, 94 Stat. 2812, Pub. L. No. 96-511.

Subpart A—Public Use and Recreation**§ 13.1 Definitions.**

The following definitions shall apply to all regulations contained in this part:

(a) The term "adequate and feasible access" means a reasonable method and route of pedestrian or vehicular transportation which is economically practicable for achieving the use or development desired by the applicant on his/her non-federal land or occupancy interest, but does not necessarily mean the least costly alternative.

(b) The term "aircraft" means a machine or device that is used or intended to be used to carry persons or objects in flight through the air, including, but not limited to airplanes, helicopters and gliders.

(c) The term "ANILCA" means the Alaska National Interest Lands Conservation Act (94 Stat. 2371; Pub. L. 96-487 (December 2, 1980)).

(d) The term "carry" means to wear, bear or carry on or about the person and additionally, in the case of firearms, within or upon a device or animal used for transportation.

(e) The term "downed aircraft" means an aircraft that as a result of mechanical failure or accident cannot take off.

(f) The term "firearm" means any loaded or unloaded pistol, revolver, rifle, shotgun or other weapon which will or is designated to or may readily be converted to expel a projectile by the action of expanded gases, except that it does not include a pistol or rifle powered by compressed gas. The term "firearm" also includes irritant gas devices.

(g) The term "fish and wildlife" means any member of the animal kingdom,

including without limitation any mammal, fish, bird (including any migratory, nonmigratory or endangered bird for which protection is also afforded by treaty or other international agreement), amphibian, reptile, mollusk, crustacean, arthropod, or other invertebrate, and includes any part, produce, egg, or offspring thereof, or the dead body or part thereof.

(h) The term "fossil" means any remains, impression, or trace of any animal or plant of past geological ages that has been preserved, by natural processes, in the earth's crust.

(i) The term "gemstone" means a silica or igneous mineral including, but not limited to (1) geodes, (2) petrified wood, and (3) jade, agate, opal, garnet, or other mineral that when cut and polished is customarily used as jewelry or other ornament.

(j) The term "National Preserve" shall include the following areas of the National Park System:

Alagnak National Wild and Scenic River, Aniakchak National Preserve, Bering Land Bridge National Preserve, Denali National Preserve, Gates of the Arctic National Preserve, Glacier Bay National Preserve, Katmai National Preserve, Lake Clark National Preserve, Noatak National Preserve, Wrangell-St. Elias National Preserve, and Yukon-Charley National Preserve.

(k) The term "net" means a seine, weir, net wire, fish trap, or other implement designed to entrap fish, except a landing net.

(l) The term "off-road vehicle" means any motor vehicle designed for or capable of crosscountry travel on or immediately over land, water, sand, snow, ice, marsh, wetland or other natural terrain, except snowmachines or snowmobiles as defined in this chapter.

(m) The term "park areas" means lands and waters administered by the National Park Service within the State of Alaska.

(n) The term "person" means any individual, firm, corporation, society, association, partnership, or any private or public body.

(o) The term "possession" means exercising dominion or control, with or without ownership, over weapons, traps, nets or other property.

(p) The term "public lands" means lands situated in Alaska which are federally owned lands, except—

(1) land selections of the State of Alaska which have been tentatively approved or validly selected under the Alaska Statehood Act (72 Stat. 339) and lands which have been confirmed to, validly selected by, or granted to the Territory of Alaska or the State under any other provision of Federal law;

(2) land selections of a Native Corporation made under the Alaska Native Claims Settlement Act (85 Stat. 688) which have not been conveyed to a Native Corporation, unless any such selection is determined to be invalid or is relinquished; and

(3) lands referred to in section 19(b) of the Alaska Native Claims Settlement Act.

(q) The term "snowmachine" or "snowmobile" means a self-propelled vehicle intended for off-road travel primarily on snow having a curb weight of not more than 1,000 pounds (450 kg), driven by a track or tracks in contact with the snow and steered by a ski or skis on contact with the snow.

(r) The term "Superintendent" means any National Park Service official in charge of a park area, the Alaska Regional Director of the National Park Service, or an authorized representative of either.

(s) The term "take" or "taking" as used with respect to fish and wildlife, means to pursue, hunt, shoot, trap, net, capture, collect, kill, harm, or attempt to engage in any such conduct.

(t) The term "temporary" means a continuous period of time not to exceed 12 months, except as specifically provided otherwise.

(u) The term "trap" means a snare, trap, mesh, or other implement designed to entrap animals other than fish.

(v) The term "unload" means there is no unexpended shell or cartridge in the chamber or magazine of a firearm: bows, crossbows and spearguns are stored in such a manner as to prevent their ready use; muzzle-loading weapons do not contain a powder charge; and any other implement capable of discharging a missile into the air or under the water does not contain a missile or similar device within the loading or discharging mechanism.

(w) The term "weapon" means a firearm, compressed gas or spring powered pistol or rifle, bow and arrow, crossbow, blow gun, speargun, hand thrown spear, slingshot, explosive device, or any other implement designed to discharge missiles into the air or under the water.

§ 13.2 Applicability and scope.

(a) The regulations contained in this Part 13 are prescribed for the proper use and management of park areas in Alaska and supplement the general regulations of this chapter. The general regulations contained in this chapter are applicable except as modified by this Part 13.

(b) Subpart A of this Part 13 contains regulations applicable to park areas. Such regulations amend in part the

general regulations contained in this chapter. The regulations in Subpart A govern use and management, including subsistence activities, within the park areas, except as modified by Subparts B or C.

(c) Subpart B of this Part 13 contains regulations applicable to subsistence activities. Such regulations apply to park areas except Kenai Fjords National Park, Katmai National Park, Glacier Bay National Park, Klondike Gold Rush National Historical Park, Sitka National Historical Park, and parts of Denali National Park. The regulations in Subpart B amend in part the general regulations contained in this chapter and the regulations contained in Subpart A of this Part 13.

(d) Subpart C of this Part 13 contains special regulations for specific park areas. Such regulations amend in part the general regulations contained in this chapter and the regulations contained in Subparts A and B of this Part 13.

(e) The regulations contained in this Part 13 are applicable only on federally owned lands within the boundaries of any park area. For purposes of this part, "federally owned lands" means land interests held or retained by the United States, but does not include those land interests: (1) Tentatively approved, legislatively conveyed, or patented to the State of Alaska; or (2) interim conveyed or patented to a Native Corporation or person.

§ 13.3 Penalties.

Any person convicted of violating any provision of the regulations contained in this Part 13, or as the same may be amended or supplemented, may be punished by a fine not exceeding \$500 or by imprisonment not exceeding 6 months, or both, and may be adjudged to pay all costs of the proceedings (16 U.S.C. 3).

§ 13.4 Information collection.

The information collection requirements contained in §§ 13.13, 13.14, 13.15, 13.16, 13.17, 13.31, 13.44, 13.45, 13.49, and 13.51 have been approved by the Office of Management and Budget under 44 U.S.C. 3507 and assigned clearance number 1024-0015. The information is being collected to solicit information necessary for the Superintendent to issue permits and other benefits. This information will be used to grant statutory or administrative benefits. In all sections except 13.13, the obligation to respond is required to obtain a benefit. In § 13.13, the obligation to respond is mandatory.

§ 13.10 Snowmachines.

(a) The use of snowmachines (during periods of adequate snow cover or frozen river conditions) for traditional activities (where such activities are permitted by ANILCA or other law) and for travel to and from villages and homesites, is permitted within park areas, except where such use is prohibited or otherwise restricted by the Superintendent in accordance with the provisions of § 13.30. Nothing in this section affects the use of snowmobiles by local rural residents engaged in subsistence uses as authorized by § 13.46.

(b) For the purposes of this section "adequate snow cover" shall mean snow of sufficient depth to protect the underlying vegetation and soil.

§ 13.11 Motorboats.

Motorboats may be operated on all park area waters, except where such use is prohibited or otherwise restricted by the Superintendent in accordance with the provisions of § 13.30, or § 7.23(b)-(f) of this chapter. Nothing in this section affects the use of motorboats by local rural residents engaged in subsistence uses as authorized by § 13.46.

§ 13.12 Nonmotorized surface transportation.

The use of nonmotorized surface transportation such as domestic dogs, horses and other pack or saddle animals is permitted in park areas except where such use is prohibited or otherwise restricted by the Superintendent in accordance with the provisions of § 13.30. Nothing in this section affects the use of nonmotorized surface transportation by local rural residents engaged in subsistence uses as authorized by § 13.46.

§ 13.13 Aircraft.

(a) Fixed-wing aircraft may be landed and operated on lands and waters within park areas, except where such use is prohibited or otherwise restricted by the Superintendent in accordance with this section. The use of aircraft for access to or from lands and waters within a national park or monument for purposes of taking fish and wildlife for subsistence uses therein is prohibited as set forth in § 13.45.

(b) In imposing any prohibitions or restrictions on fixed-wing aircraft use the Superintendent shall: (1) Comply with the procedures set forth in § 13.30; (2) publish notice of prohibitions or restrictions as "Notices to Airmen" issued by the Department of Transportation; and (3) publish permanent prohibitions or restrictions as a regulatory notice in the United States

Government Flight Information Service "Supplement Alaska."

(c) Except as provided in paragraph (d) of this section, the owners of any aircraft downed after December 2, 1980, shall remove the aircraft and all component parts thereof in accordance with procedures established by the Superintendent. In establishing a removal procedure, the Superintendent is authorized to: (1) Establish a reasonable date by which aircraft removal operations must be complete; and (2) determine times and means of access to and from the downed aircraft.

(d) The Superintendent may waive the requirements of § 13.12(c) upon a determination that: (1) The removal of downed aircraft would constitute an unacceptable risk to human life; or (2) the removal of a downed aircraft would result in extensive resource damage; or (3) the removal of a downed aircraft is otherwise impracticable or impossible.

(e) Salvaging, removing, possessing, or attempting to salvage, remove or possess any downed aircraft or component parts thereof is prohibited, except in accordance with a removal procedure established under paragraph (c) of this section. *Provided, however,* That the owner or an authorized representative thereof may remove valuable component parts from a downed aircraft at the time of rescue without a permit.

(f) The use of a helicopter in any park area, other than at designated landing areas (see Subpart C regulations for each park area) pursuant to the terms and conditions of a permit issued by the Superintendent, is prohibited.

§ 13.14 Off-road vehicles.

(a) The use of off-road vehicles in locations other than established roads and parking areas is prohibited, except on routes or in areas designated by the Superintendent or pursuant to a valid permit as prescribed in paragraph (c) of this section or in § 13.15 or § 13.16. Such designations shall be made in accordance with procedures in this section. Nothing in this section affects the use of off-road vehicles by local rural residents engaged in subsistence as authorized by § 13.46.

(b)(1) The Superintendent's determination of whether to designate a route or area for off-road vehicle use shall be governed by Executive Order 11644, as amended.

(2) Route or area designations shall be published in the "Federal Register."

(3) Notice of routes or areas on which off-road travel is permitted shall be in accordance with the provisions of § 13.30(f).

(4) The closure or restrictions on use of designated routes or areas to off-road vehicles use shall be in accordance with the provisions of § 13.30.

(c) The Superintendent is authorized to issue permits for the use of off-road vehicles on existing off-road vehicle trails located in park areas (other than areas designated as part of the National Wilderness Preservation System) upon a finding that such off-road vehicle use would be compatible with park purposes and values. The Superintendent shall include in any permit such stipulations and conditions as are necessary for the protection of park purposes and values.

§ 13.15 Access to inholdings.

(a) *Purpose.* A permit for access to inholdings pursuant to this section is required only where adequate and feasible access is not affirmatively provided without a permit under §§ 13.10-13.14 of these regulations. Thus, it is the purpose of this section to ensure adequate and feasible access across a park area for any person who has a valid property or occupancy interest in lands within or effectively surrounded by a park area or other lands listed in section 1110(b) of ANILCA.

(b) *Application and Administration.* (1) Applications for a permit designating methods and routes of access across park areas not affirmatively provided for in this part shall be submitted to the Superintendent having jurisdiction over the affected park area as specified under § 13.31.

(2) Except as provided in paragraph (c) of this section, the access permit application shall contain the name and address of the applicant, documentation of the relevant property or occupancy interest held by the applicant (including for 1872 Mining Law claimants a copy of the location notice and recordings required under the 1872 Mining Law and 43 U.S.C. 1744), a map or physical description of the relevant property or occupancy interest, a map or physical description of the desired route of access, a description of the desired method of access, and any other information necessary to determine the adequacy and feasibility of the route or method of access and its impact on the natural or other values of the park area.

(3) The Superintendent shall specify in a nontransferable permit, adequate and feasible routes and methods of access across park areas for any person who meets the criteria of paragraph (a) of this section. The Superintendent shall designate the routes and methods desired by the applicant unless it is determined that:

(i) The route or method of access would cause significant adverse impacts on natural or other values of the park area, and adequate and feasible access otherwise exists; or

(ii) The route or method of access would jeopardize public health and safety, and adequate and feasible access otherwise exists.

(4) If the Superintendent makes one of the findings described in paragraph (b)(3) of this section, he/she shall specify such other alternate methods and routes of access as will provide the applicant adequate and feasible access, while minimizing damage to natural and other values of the park area.

(5) Any person holding an access permit shall notify the Superintendent of any significant change in the method or level of access from that occurring at the time of permit issuance. In such cases, the Superintendent may modify the terms and conditions of the permit, provided that the modified permit also assures adequate and feasible access under the standards of paragraph (b)(3) of this section.

(6) Routes and methods of access permitted pursuant to this section shall be available for use by guests and invitees of the permittee.

(c) *Access requiring permanent improvements.* (1) Application form and procedure. Any application for access to an inholding which proposes the construction or modification of an improved road (e.g., construction or modification of a permanent, year-round nature, and which involves substantial alteration of the terrain or vegetation, such as grading, gravelling of surfaces, concrete bridges, or other such construction or modification), or any other permanent improvement on park area lands qualifying as a "transportation or utility system" under Section 1102 of ANILCA, shall be submitted on the consolidated application form specified in Section 1104(h) of ANILCA, and processed in accordance with the procedures of Title XI of ANILCA.

(2) *Decision-making standard.* (i) If the permanent improvement is required for adequate and feasible access to the inholding (e.g., improved right-of-way or landing strip), the permit granting standards of paragraph (b) of this section shall apply.

(ii) If the permanent improvement is not required as part of the applicant's right to adequate and feasible access to an inholding (e.g., pipeline, transmission line), the permit granting standards of Sections 1104-1107 of ANILCA shall apply.

(d) *Clarification of the Applicability of 36 CFR Part 9.* (1) 1872 Mining Law

Claims and 36 CFR Subpart 9A. Since section 1110(b) of ANILCA guarantees adequate and feasible access to valid mining claims within park areas notwithstanding any other law, and since the 36 CFR 9.3 requirement for an approved plan of operations prior to the issuance of an access permit may interfere with needed access, 36 CFR 9.3 is no longer applicable in Alaska park areas. However, holders of patented or unpatented mining claims under the 1872 Mining Law (30 U.S.C. 22 *et seq.*) should be aware that 36 CFR 9.9, 9.10 independently require an approved plan of operations prior to conducting mining operations within a park area (except that no plan of operations is required for patented claims where access is not across federally-owned parklands).

(2) *Non-Federal Oil and Gas Rights* and 36 CFR Subpart 9B. Since section 1110(b) of ANILCA guarantees adequate and feasible access to park area inholdings notwithstanding any other law, and since 36 CFR Subpart 9B was predicated on the park area Superintendent's discretion to restrict and condition such access, 36 CFR Subpart 9B is no longer applicable in Alaska park areas.

§ 13.16 Temporary access.

(a) *Applicability.* This section is applicable to State and private landowners who desire temporary access across a park area for the purposes of survey, geophysical, exploratory and other temporary uses of such nonfederal lands, and where such temporary access is not affirmatively provided for in §§ 13.10-13.15. State and private landowners meeting the criteria of § 13.15(a) are directed to utilize the procedures of § 13.15 to obtain temporary access.

(b) *Application.* A landowner requiring temporary access across a park area for survey, geophysical, exploratory or similar temporary activities shall apply to the Superintendent for an access permit and shall provide the relevant information described in section 13.15(b)(2), concerning the proposed access.

(c) *Permit standards, stipulations and conditions.* The Superintendent shall grant the desired temporary access whenever he/she determines that such access will not result in permanent harm to park area resources. The Superintendent shall include in any permit granted such stipulations and conditions on temporary access as are necessary to ensure that the access granted would not be inconsistent with the purposes for which the park area was reserved and to ensure that no

permanent harm will result to park area resources.

(d) *Definition.* For the purposes of this section, "temporary access" shall mean limited, short-term (i.e., up to one year from issuance of the permit) access, which does not require permanent facilities for access, to undeveloped State or private lands.

§ 13.17 Cabins and other structures.

(a) *Purpose.* It is the purpose of this section to provide procedures and guidance for those occupying and using existing cabins and those wishing to construct new cabins within park areas.

(b) *Existing cabins or other structures.* (1) This subsection applies to all park areas in Alaska except Klondike Gold Rush National Historical Park, Sitka National Historical Park and the former Mt. McKinley National Park, Glacier Bay National Monument and Katmai National Monument.

(2) Cabins or other structures existing prior to December 18, 1973, may be occupied and used by the claimants to these structures pursuant to a nontransferable, renewable permit. This use and occupancy shall be for terms of five years. *Provided, however,* That the claimant to the structure, by application:

(i) Reasonably demonstrates by affidavit, bill of sale or other documentation proof of possessory interest or right of occupancy in the cabin or structure;

(ii) Submits an acceptable photograph or sketch which accurately depicts the cabin or structure and a map showing its geographic location;

(iii) Agrees to vacate and remove all personal property from the cabin or structure upon expiration of the permit;

(iv) Acknowledges in the permit that he/she has no interest in the real property on which the cabin or structure is located; and

(v) Submits a listing of the names of all immediate family members residing in the cabin or structure.

Permits issued under the provisions of this paragraph shall be renewed every five years until the death of the last immediate family member of the claimant residing in the cabin or structure under permit. Renewal will occur unless the Superintendent determines after notice and hearing, and on the basis of substantial evidence in the administrative record as a whole, that the use under the permit is causing or may cause significant detriment to the principal purposes for which the park area was established. The Superintendent's decision may be appealed pursuant to the provisions of 43 CFR 4.700.

(3) Cabins or other structures, the occupancy or use of which began between December 18, 1973, and December 1, 1978, may be used and occupied by the claimant to these structures pursuant to a nontransferable, nonrenewable permit. This use and occupancy shall be for a maximum term of 1 year: *Provided, however*, That the claimant, by application, complies with § 13.17(c)(1) (i) through (iv) above. Permits issued under the provisions of this paragraph may be extended by the Superintendent, subject to reasonable regulations, for a period not to exceed one year for such reasons as the Superintendent deems equitable and just.

(4) Cabins or other structures, construction of which began after December 1, 1978, shall not be available for use and occupancy, unless authorized under the provisions of paragraph (d) of this section.

(5) Cabins or other structures, not under permit, shall be used only for official government business: *Provided, however*, That during emergencies involving the safety of human life, or where designated for public use by the Superintendent through the posting of signs, these cabins may be used by the general public.

(c) *New Cabins or Other Structures Necessary for Subsistence Uses or Otherwise Authorized by Law.* The Superintendent may issue a permit under such conditions as he/she may prescribe for the construction, reconstruction, temporary use, occupancy, and maintenance of new cabins or other structures when he/she determines that the use is necessary to accommodate reasonably subsistence uses or is otherwise authorized by law. In determining whether to permit the use, occupancy, construction, reconstruction or maintenance of cabins or other structures, the Superintendent shall be guided by factors such as other public uses, public health and safety, environmental and resource protection, research activities, protection of cultural or scientific values, subsistence uses, endangered or threatened species conservation and other management considerations necessary to ensure that the activities authorized pursuant to this section are compatible with the purposes for which the park area was established.

(d) *Existing Cabin Leases or Permits.* Nothing in this section shall preclude the renewal or continuation of valid leases or permits in effect as of December 2, 1980, for cabins, homesites, or similar structures on federally owned lands. Unless the Superintendent issues specific findings, following notice and

an opportunity for the leaseholder or permittee to respond, that renewal or continuation of such valid permit or lease constitutes a direct threat or a significant impairment to the purposes for which the park area was established, he/she shall renew such valid leases or permits upon their expiration in accordance with the provisions of the original lease or permit subject to such reasonable regulations as he/she prescribe in keeping with the management objectives of the park area. Subject to the provisions of the original lease or permit, nothing in this paragraph shall necessarily preclude the Superintendent from transferring such a lease or permit to another person at the election or death of the original permittee or leasee.

§ 13.18 Camping and picnicking.

(a) *Camping.* Camping is permitted in park areas except where such use is prohibited or otherwise restricted by the Superintendent in accordance with the provisions of § 13.30, or as set forth for specific park areas in Subpart C of this part.

(b) *Picnicking.* Picnicking is permitted in park areas except where such activity is prohibited by the posting of appropriate signs.

§ 13.19 Weapons, traps and nets.

(a) This section applies to all park areas in Alaska except Klondike Gold Rush National Historical Park, Sitka National Historical Park and the former Mt. McKinley National Park, Glacier Bay National Monument and Katmai National Monument.

(b) Firearms may be carried within park areas in accordance with applicable Federal and State laws, except where such carrying is prohibited or otherwise restricted pursuant to § 13.30.

(c) Traps, bows and other implements authorized by State and Federal law for the taking of fish and wildlife may be carried within National Preserves only during those times when the taking of fish and wildlife is authorized by applicable law or regulation.

(d) In addition to the authorities provided in paragraphs (b) and (c) of this section, weapons (other than firearms) traps and nets may be possessed within park areas provided such weapons, traps or nets are within or upon a device or animal used for transportation and are unloaded and cased or otherwise packed in such a manner as to prevent their ready use while in a park area.

(e) Notwithstanding the provisions of this section, local rural residents who are authorized to engage in subsistence

uses, including the taking of wildlife pursuant to § 13.48, may use, possess, or carry traps, nets and other weapons in accordance with applicable State and Federal laws.

§ 13.20 Preservation of natural features.

(a) This section applies to all park areas in Alaska except Klondike Gold Rush National Historical Park, Sitka National Historical Park, the former Mt. McKinley National Park, Glacier Bay National Monument, and Katmai National Monument.

(b) *Renewable Resources.* The gathering or collecting, by hand and for personal use only, of the following renewable resources is permitted:

(1) Natural plant food items, including fruits, berries and mushrooms, but not including threatened or endangered species;

(2) Driftwood and uninhabited seashells;

(3) Such plant materials and minerals as are essential to the conduct of traditional ceremonies by Native Americans; and

(4) Dead or downed wood for use in fires within park areas.

(c) *Rocks and Minerals.* Surface collection, by hand (including hand-held gold pans) and for personal recreational use only, of rocks and minerals is permitted: *Provided, however*, That (1) collection of silver, platinum, gemstones and fossils is prohibited, and (2) collection methods which may result in disturbance of the ground surface, such as the use of shovels, pickaxes, sluice boxes, and dredges, are prohibited.

(d) *Closure and Notice.* Under conditions where it is found that significant adverse impact on park resources, wildlife populations, subsistence uses, or visitor enjoyment of resources will result, the Superintendent shall prohibit the gathering or otherwise restrict the collecting of these items. Portions of a park area in which closures or restrictions apply shall be (1) published in at least one newspaper of general circulation in the State and designated on a map which shall be available for public inspection in the office of the Superintendent, or (2) designated by the posting of appropriate signs, or (3) both.

(e) *Subsistence.* Nothing in this section shall apply to local rural residents authorized to take renewable resources.

§ 13.21 Taking of fish and wildlife.

(a) *Subsistence.* Nothing in this section shall apply to the taking of fish and wildlife for subsistence uses.

(b) *Fishing.* Fishing is permitted in all park areas in accordance with applicable State and Federal law, and such laws are hereby adopted and made a part of these regulations to the extent they are not inconsistent with § 2.13 of this chapter. With respect to the Cape Krusenstern National Monument, the Malaspina Glacier Forelands area of the Wrangell-St. Elias National Preserve, and the Dry Bay area of Glacier Bay National Preserve, the exercise of valid recreational fishing rights or privileges is subject pursuant to existing law—excluding any use of park area lands for campsites, cabins, motorized vehicles, aircraft landings on existing strips which is directly incident to the exercise of such rights or privileges—may continue: *Provided, however,* That the Superintendent may restrict the use of park area lands directly incident to the exercise of these rights or privileges if he/she determines, after conducting a public hearing in the affected locality, that such use of park area lands constitutes a significant expansion of the use of park area lands beyond the level of such use during 1979.

(c) *Hunting and Trapping.* Hunting and trapping are permitted in all National Preserves in accordance with applicable State and Federal law, and such laws are hereby adopted and made a part of these regulations: *Provided, however,* That engaging in trapping activities, as the employee of another person is prohibited.

(d) *Closures and Restrictions.* The Superintendent may prohibit or restrict the taking of fish or wildlife in accordance with the provisions of § 13.30. Except in emergency conditions, such restrictions shall take effect only after consultation with the appropriate State agency having responsibility over fishing, hunting, or trapping and representatives of affected users.

§ 13.22 Unattended or abandoned property.

(a) This section applies to all park areas in Alaska except Klondike Gold Rush National Historical Park and Sitka National Historical Park, or as further restricted for specific park areas in Subpart C of this part.

(b) Leaving any snowmachine, vessel, off-road vehicle or other personal property unattended for longer than 12 months without prior permission of the Superintendent is prohibited, and any property so left may be impounded by the Superintendent.

(c) The Superintendent may (1) designate areas where personal property may not be left unattended for any time period, (2) establish limits on the amount, and type of personal property

that may be left unattended, (3) prescribe the manner in which personal property may be left unattended, or (4) establish limits on the length of time personal property may be left unattended. Such designations and restrictions shall be (i) published in at least one newspaper of general circulation within the State, posted at community post offices within the vicinity affected, made available for broadcast on local radio stations in a manner reasonably calculated to inform residents in the affected community, and designated on a map which shall be available for public inspection at the office of the Superintendent, or (ii) designated by the posting of appropriate signs or (iii) both.

(d) In the event unattended property interferes with the safe and orderly management of a park area or is causing damage to the resources of the area, it may be impounded by the Superintendent at any time.

§ 13.30 Closure procedures.

(a) *Authority.* The Superintendent may close an area or restrict an activity on an emergency, temporary, or permanent basis.

(b) *Criteria.* In determining whether to close an area or restrict an activity on an emergency basis, the Superintendent shall be guided by factors such as public health and safety, resource protection, protection of cultural or scientific values, subsistence uses, endangered or threatened species conservation, and other management considerations necessary to ensure that the activity or area is being managed in a manner compatible with the purposes for which the park area was established.

(c) *Emergency Closures.* (1) Emergency closures or restrictions relating to the use of aircraft, snowmachines, motorboats, or nonmotorized surface transportation shall be made after notice and hearing; (2) emergency closures or restrictions relating to the taking of fish and wildlife shall be accompanied by notice and hearing; (3) other emergency closures shall become effective upon notice as prescribed in § 13.30(f); and (4) no emergency closure or restriction shall extend for a period exceeding 30 days, nor may it be extended.

(d) *Temporary closures or restrictions.* (1) Temporary closures or restrictions relating to the use of aircraft, snowmachines, motorboats, or nonmotorized surface transportation or to the taking of fish and wildlife, shall not be effective prior to notice and hearing in the vicinity of the area(s) directly affected by such closures or restrictions, and other locations as

appropriate; (2) other temporary closures shall be effective upon notice as prescribed in § 13.30(f); (3) temporary closures or restrictions shall not extend for a period exceeding 12 months and may not be extended.

(e) *Permanent closures or restrictions.* Permanent closures or restrictions shall be published as rulemaking in the **Federal Register** with a minimum public comment period of 60 days and shall be accompanied by public hearings in the area affected and other locations as appropriate.

(f) *Notice.* Emergency, temporary and permanent closures or restrictions shall be (1) published in at least one newspaper of general circulation in the State and in at least one local newspaper if available, posted at community post offices within the vicinity affected, made available for broadcast on local radio stations in a manner reasonably calculated to inform residents in the affected vicinity, and designated on a map which shall be available for public inspection at the office of the Superintendent and other places convenient to the public; or (2) designated by the posting of appropriate signs; or (3) both.

(g) *Openings.* In determining whether to open an area to public use or activity otherwise prohibited, the Superintendent shall provide notice in the **Federal Register** and shall, upon request, hold a hearing in the affected vicinity and other locations as appropriate prior to making a final determination.

(h) Except as otherwise specifically permitted under the provisions of this part, entry into closed areas or failure to abide by restrictions established under this section is prohibited.

§ 13.31 Permits.

(a) *Application.* (1) Application for a permit required by any section of this part shall be submitted to the Superintendent having jurisdiction over the affected park area, or in the absence of the Superintendent, the Regional Director. If the applicant is unable or does not wish to submit the application in written form, the Superintendent shall provide the applicant an opportunity to present the application orally and shall keep a record of such oral application.

(2) The Superintendent shall grant or deny the application in writing within 45 days. If this deadline cannot be met for good cause, the Superintendent shall so notify the applicant in writing. If the permit application is denied, the Superintendent shall specify in writing the reasons for the denial.

(b) *Denial and appeal procedures.* (1) An applicant whose application for a permit, required pursuant to this part, has been denied by the Superintendent has the right to have the application reconsidered by the Regional Director by contacting him/her within 180 days of the issuance of the denial. For purposes of reconsideration, the permit applicant shall present the following information:

(i) Any statement or documentation, in addition to that included in the initial application, which demonstrates that the applicant satisfies the criteria set forth in the section under which the permit application is made.

(ii) The basis for the permit applicant's disagreement with the Superintendent's findings and conclusions; and

(iii) Whether or not the permit applicant requests an informal hearing before the Regional Director.

(2) The Regional Director shall provide a hearing if requested by the applicant. After consideration of the written materials and oral hearing, if any, and within a reasonable period of time, the Regional Director shall affirm, reverse, or modify the denial of the Superintendent and shall set forth in writing the basis for the decision. A copy of the decision shall be forwarded promptly to the applicant and shall constitute final agency action.

Subpart B—Subsistence

§ 13.40 Purpose and policy.

(a) Consistent with the management of fish and wildlife in accordance with recognized scientific principles and the purposes for which each park area was established, designated, or expanded by ANILCA, the purpose of this subpart is to provide the opportunity for local rural residents engaged in a subsistence way of life to do so pursuant to applicable State and Federal law.

(b) Consistent with sound management principles, and the conservation of healthy populations of fish and wildlife, the utilization of park areas is to cause the least adverse impact possible on local rural residents who depend upon subsistence uses of the resources of the public lands in Alaska.

(c) Nonwasteful subsistence uses of fish, wildlife and other renewable resources by local rural residents shall be the priority consumptive uses of such resources over any other consumptive uses permitted within park areas pursuant to applicable State and Federal law.

(d) Whenever it is necessary to restrict the taking of a fish or wildlife

population within a park area for subsistence uses in order to assure the continued viability of such population or to continue subsistence uses of such population, the population shall be allocated among local rural residents engaged in subsistence uses in accordance with a subsistence priority system based on the following criteria:

(1) Customary and direct dependence upon the resource as the mainstay of one's livelihood;

(2) Local residency; and

(3) Availability of alternative resources.

(e) The State of Alaska is authorized to regulate the taking of fish and wildlife for subsistence uses within park areas to the extent such regulation is consistent with applicable Federal law, including but not limited to ANILCA.

(f) Nothing in this subpart shall be construed as permitting a level of subsistence use of fish and wildlife within park areas to be inconsistent with the conservation of healthy populations, and within a national park or monument to be inconsistent with the conservation of natural and healthy populations, of fish and wildlife.

§ 13.41 Applicability.

Subsistence uses by local rural residents are allowed pursuant to the regulations of this Subpart in the following park areas:

(a) In national preserves;

(b) In Cape Krusenstern National Monument and Kobuk Valley National Park;

(c) Where such uses are traditional (as may be further designated for each park or monument in Subpart C of this part) in Aniakchak National Monument, Gates of the Arctic National Park, Lake Clark National Park, Wrangell-St. Elias National Park, and the Denali National Park addition.

§ 13.42 Definitions.

(a) *Local rural resident.* (1) As used in this part with respect to national parks and monuments, the term "local rural resident" shall mean either of the following:

(i) Any person who has his/her primary, permanent home within the resident zone as defined by this section, and whenever absent from this primary, permanent home, has the intention of returning to it. Factors demonstrating the location of a person's primary, permanent home may include, but are not limited to, the permanent address indicated on licenses issued by the State of Alaska Department of Fish and Game, driver's license, and tax returns, and the location of registration to vote.

(ii) Any person authorized to engage in subsistence uses in a national park or monument by a subsistence permit issued pursuant to § 13.44.

(b) *Resident zone.* As used in this part, the term "resident zone" shall mean the area within, and the communities and areas near, a national park or monument in which persons who have customarily and traditionally engaged in subsistence uses within the national park or monument permanently reside. The communities and areas near a national park or monument included as a part of its resident zone shall be determined pursuant to § 13.43 and listed for each national park or monument in Subpart C of this part.

(c) *Subsistence uses.* As used in this part, the term "subsistence uses" shall mean the customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools or transportation; for the making and selling of handicraft articles out of nonedible byproducts of fish and wildlife resources taken for personal or family consumption; for barter or sharing for personal or family consumption; and for customary trade. For the purposes of this paragraph, the term—

(1) "Family" shall mean all persons related by blood, marriage, or adoption, or any person living within the household on a permanent basis; and

(2) "Barter" shall mean the exchange of fish or wildlife or their parts taken for subsistence uses—

(i) For other fish or game or their parts; or

(ii) For other food or for nonedible items other than money if the exchange is of a limited and noncommercial nature; and

(3) "Customary trade" shall be limited to the exchange of furs for cash (and such other activities as may be designated for a specific park area in Subpart C of this part).

§ 13.43 Determination of resident zones.

(a) A resident zone shall include—

(1) the area within a national park or monument, and

(2) the communities and areas near a national park or monument which contain significant concentrations of rural residents who, without using aircraft as a means of access for purposes of taking fish or wildlife for subsistence uses (except in extraordinary cases where no reasonable alternative existed), have customarily and traditionally engaged in subsistence uses within a national park or monument. For purposes of

determining "significant" concentrations, family members shall also be included.

(b) After notice and comment, including public hearing in the affected local vicinity, a community or area near a national park or monument may be—

(1) Added to a resident zone, or

(2) Deleted from a resident zone, when such community or area does or does not meet the criteria set forth in paragraph (a) of this section, as appropriate.

(c) For purposes of this section, the term "family" shall mean all persons living within a rural resident's household on a permanent basis.

§ 13.44 Subsistence permits for persons whose primary, permanent home is outside a resident zone.

(a) Any rural resident whose primary, permanent home is outside the boundaries of a resident zone of a national park or monument may apply to the appropriate Superintendent pursuant to the procedures set forth in § 13.51 for a subsistence permit authorizing the permit applicant to engage in subsistence uses within the national park or monument. The Superintendent shall grant the permit if the permit applicant demonstrates that.

(1) Without using aircraft as a means of access for purposes of taking fish and wildlife for subsistence uses, the applicant has (or is a member of a family which has) customarily and traditionally engaged in subsistence uses within a national park or monument; or

(2) The applicant is a local rural resident within a resident zone for another national park or monument, or meets the requirements of paragraph (1) of this section for another national park or monument, and there exists a pattern of subsistence uses (without use of an aircraft as a means of access for purposes of taking fish and wildlife for subsistence uses) between the national park or monument previously utilized by the permit applicant and the national park or monument for which the permit applicant seeks a subsistence permit.

(b) In order to provide for subsistence uses pending application for and receipt of a subsistence permit, until August 1, 1981, any rural resident whose primary permanent home is outside the boundaries of a resident zone of a national park or monument and who meets the criteria for a subsistence permit set forth in paragraph (a) of this section may engage in subsistence uses in the national park or monument without a permit in accordance with applicable State and Federal law. Effective August 1, 1981, however, such

rural resident must have a subsistence permit as required by paragraph (a) of this section in order to engage in subsistence uses in the national park or monument.

(c) For purposes of this section, the term "family" shall mean all persons living within a rural resident's household on a permanent basis.

§ 13.45 Prohibition of aircraft use.

(a) Notwithstanding the provisions of § 13.12 the use of aircraft for access to or from lands and waters within a national park or monument for purposes of taking fish or wildlife for subsistence uses within the national park or monument is prohibited except as provided in this section.

(b) *Exceptions.* (1) In extraordinary cases where no reasonable alternative exists, the Superintendent shall permit, pursuant to specified terms and conditions, a local rural resident of an "exempted community" to use aircraft for access to or from lands and water within a national park or monument for purposes of taking fish or wildlife for subsistence uses.

(i) A community shall qualify as an "exempted community" if, because of the location of the subsistence resources upon which it depends and the extraordinary difficulty of surface access to these subsistence resources, the local rural residents who permanently reside in the community have no reasonable alternative to aircraft use for access to these subsistence resources.

(ii) A community which is determined, after notice and comment (including public hearing in the affected local vicinity), to meet the description of an "exempted community" set forth in paragraph (b)(1) of this section shall be included in the appropriate special regulations for each park and monument set forth in Subpart C of this part.

(iii) A community included as an "exempted community" in Subpart C of this part may be deleted therefrom upon a determination, after notice and comment (including public hearing in the affected local vicinity), that it does not meet the description of an "exempted community" set forth in paragraph (b)(1) of this section.

(2) Any local rural resident aggrieved by the prohibition on aircraft use set forth in this section may apply for an exception to the prohibition pursuant to the procedures set forth in § 13.51. In extraordinary cases where no reasonable alternative exists, the Superintendent may grant the exception upon a determination that the location of the subsistence resources depended upon and the difficulty of surface access

to these resources, or other emergency situation, requires such relief.

(c) Nothing in this section shall prohibit the use of aircraft for access to lands and waters within a national park or monument for purposes of engaging in any activity allowed by law other than the taking of fish and wildlife. Such activities include, but are not limited to, transporting supplies.

§ 13.46 Use of snowmobiles, motorboats, dog teams, and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses.

(a) Notwithstanding any other provision of this chapter, the use of snowmobiles, motorboats, dog teams, and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses is permitted within park areas except at those times and in those areas restricted or closed by the Superintendent.

(b) The Superintendent may restrict or close a route or area to use of snowmobiles, motorboats, dog teams, or other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses if the Superintendent determines that such use is causing or is likely to cause an adverse impact on public health and safety, resource protection, protection of historic or scientific values, subsistence uses, conservation of endangered or threatened species, or the purposes for which the park area was established.

(c) No restrictions or closures shall be imposed without notice and a public hearing in the affected vicinity and other locations as appropriate. In the case of emergency situations, restrictions or closures shall not exceed sixty (60) days and shall not be extended unless the Superintendent establishes, after notice and public hearing in the affected vicinity and other locations as appropriate, that such extension is justified according to the factors set forth in paragraph (b) of this section. Notice of the proposed or emergency restrictions or closures and the reasons therefor shall be published in at least one newspaper of general circulation within the State and in at least one local newspaper if appropriate, and information about such proposed or emergency actions shall also be made available for broadcast on local radio stations in a manner reasonably calculated to inform local rural residents in the affected vicinity. All restrictions and closures shall be designated on a map which shall be available for public inspection at the office of the

Superintendent of the affected park area and the post office or postal authority of every affected community within or near the park area, or by the posting of signs in the vicinity of the restrictions or closures, or both.

(d) Motorboats, snowmobiles, dog teams, and other means of surface transportation traditionally employed by local rural residents engaged in subsistence uses shall be operated (1) in compliance with applicable State and Federal law, (2) in such a manner as to prevent waste or damage to the park areas, and (3) in such a manner as to prevent the herding, harassment, hazing or driving of wildlife for hunting or other purposes.

(e) At all times when not engaged in subsistence uses, local rural residents may use snowmobiles, motorboats, dog teams, and other means of surface transportation in accordance with §§ 13.10, 13.11, 13.12, and 13.14, respectively.

§ 13.47 Subsistence fishing.

Fish may be taken by local rural residents for subsistence uses in park areas where subsistence uses are allowed in compliance with applicable State and Federal law, including the provisions of §§ 2.13 and 13.21 of this chapter: *Provided, however*, That local rural residents in park areas where subsistence uses are allowed may fish with a net, seine, trap, or spear where permitted by State law. To the extent consistent with the provisions of this chapter, applicable State laws and regulations governing the taking of fish which are now or will hereafter be in effect are hereby incorporated by reference as a part of these regulations.

§ 13.48 Subsistence hunting and trapping

Local rural residents may hunt and trap wildlife for subsistence uses in park areas where subsistence uses are allowed in compliance with applicable State and Federal law. To the extent consistent with the provisions of this chapter, applicable State laws and regulations governing the taking of wildlife which are now or will hereafter be in effect are hereby incorporated by reference as a part of these regulations.

§ 13.49 Subsistence use of timber and plant material.

(a) Notwithstanding any other provision of this part, the non-commercial cutting of live standing timber by local rural residents for appropriate subsistence uses, such as firewood or house logs, may be permitted in park areas where subsistence uses are allowed as follows:

(1) For live standing timber of diameter greater than three inches at ground height, the Superintendent may permit cutting in accordance with the specifications of a permit if such cutting is determined to be compatible with the purposes for which the park area was established;

(2) For live standing timber of diameter less than three inches at ground height, cutting is permitted unless restricted by the Superintendent.

(b) The noncommercial gathering by local rural residents of fruits, berries, mushrooms, and other plant materials for subsistence uses, and the noncommercial gathering of dead or downed timber for firewood, shall be allowed without a permit in park areas where subsistence uses are allowed.

(c)(1) Notwithstanding any other provision of this part, the Superintendent, after notice and public hearing in the affected vicinity and other locations as appropriate, may temporarily close all or any portion of a park area to subsistence uses of a particular plant population only if necessary for reasons of public safety, administration, or to assure the continued viability of such population. For the purposes of this section, the term "temporarily" shall mean only so long as reasonably necessary to achieve the purposes of the closure.

(2) If the Superintendent determines that an emergency situation exists and that extraordinary measures must be taken for public safety or to assure the continued viability of a particular plant population, the Superintendent may immediately close all or any portion of a park area to the subsistence uses of such population. Such emergency closure shall be effective when made, shall be for a period not to exceed sixty (60) days, and may not subsequently be extended unless the Superintendent establishes, after notice and public hearing in the affected vicinity and other locations as appropriate, that such closure should be extended.

(3) Notice of administrative actions taken pursuant to this section, and the reasons justifying such actions, shall be published in at least one newspaper of general circulation within the State and at least one local newspaper if available, and information about such actions and reasons also shall be made available for broadcast on local radio stations in a manner reasonably calculated to inform local rural residents in the affected vicinity. All closures shall be designated on a map which shall be available for public inspection at the office of the Superintendent of the affected park area and the post office or postal authority of every affected

community within or near the park area, or by the posting of signs in the vicinity of the restrictions, or both.

§ 13.50 Closure to subsistence uses of fish and wildlife.

(a) Notwithstanding any other provision of this part, the Superintendent, after consultation with the State and adequate notice and public hearing in the affected vicinity and other locations as appropriate, may temporarily close all or any portion of a park area to subsistence uses of a particular fish or wildlife population only if necessary for reasons of public safety, administration, or to assure the continued viability of such population. For purposes of this section, the term "temporarily" shall mean only so long as reasonably necessary to achieve the purposes of the closure.

(b) If the Superintendent determines that an emergency situation exists and that extraordinary measures must be taken for public safety or to assure the continued viability of a particular fish or wildlife population, the Superintendent may immediately close all or any portion of a park area to the subsistence uses of such population. Such emergency closure shall be effective when made, shall be for a period not to exceed sixty (60) days, and may not subsequently be extended unless the Superintendent establishes, after notice and public hearing in the affected vicinity and other locations as appropriate, that such closure should be extended.

(c) Notice of administrative actions taken pursuant to this section, and the reasons justifying such actions, shall be published in at least one newspaper of general circulation within the State and in at least one local newspaper if available, and information about such actions and reasons also shall be made available for broadcast on local radio stations in a manner reasonably calculated to inform local rural residents in the affected vicinity. All closures shall be designated on a map which shall be available for public inspection at the office of the Superintendent of the affected park area and the post office or postal authority of every affected community within or near the park area, or by the posting of signs in the vicinity of the restrictions, or both.

§ 13.51 Application procedures for subsistence permits and aircraft exceptions.

(a) Any person applying for the subsistence permit required by § 13.44(a), or the exception to the prohibition on aircraft use provided by

§ 13.45(b)(2), shall submit his/her application to the Superintendent of the appropriate national park or monument. If the applicant is unable or does not wish to submit the application in written form, the Superintendent shall provide the applicant an opportunity to present the application orally and shall keep a record of such oral application. Each application must include (1) a statement which acknowledges that providing false information in support of the application is a violation of Section 1001 of Title 18 of the United States Code, and (2) additional statements or documentation which demonstrates that the applicant satisfies the criteria set forth in § 13.44(a) for a subsistence permit or § 13.45(b)(2) for the aircraft exception, as appropriate. Except in extraordinary cases for good cause shown, the Superintendent shall decide whether to grant or deny the application in a timely manner not to exceed forty-five (45) days following the receipt of the completed application. Should the Superintendent deny the application, he/she shall include in the decision a statement of the reasons for the denial and shall promptly forward a copy to the applicant.

(b) An applicant whose application has been denied by the Superintendent has the right to have his/her application reconsidered by the Alaska Regional Director by contacting the Regional Director within 180 days of the issuance of the denial. The Regional Director may extend the 180-day time limit to initiate a reconsideration for good cause shown by the applicant. For purposes of reconsideration, the applicant shall present the following information:

(1) Any statement or documentation, in addition to that included in the initial application, which demonstrates that the applicant satisfies the criteria set forth in paragraph (a) of this section;

(2) The basis for the applicant's disagreement with the Superintendent's findings and conclusions; and

(3) Whether or not the applicant requests an informal hearing before the Regional Director.

(c) The Regional Director shall provide a hearing if requested by the applicant. After consideration of the written materials and oral hearing, if any, and within a reasonable period of time, the Regional Director shall affirm, reverse, or modify the denial of the Superintendent and shall set forth in writing the basis for the decision. A copy of the decision shall be forwarded promptly to the applicant and shall constitute final agency action.

Subpart C—Special Regulations— Specific Park Areas in Alaska

§ 13.61 Bering Land Bridge National Preserve.

(a) *Off-Road Vehicles.* The use of off-road vehicles for purposes of reindeer grazing may be permitted in accordance with a permit issued by the Superintendent.

APPENDIX C

(copy)

MASTER MEMORANDUM OF UNDERSTANDING
BETWEEN
THE ALASKA DEPARTMENT OF FISH AND GAME
JUNEAU, ALASKA
AND
THE U.S. NATIONAL PARK SERVICE
DEPARTMENT OF THE INTERIOR
ANCHORAGE, ALASKA

This Master Memorandum of Understanding between the State of Alaska, Department of Fish and Game, hereinafter referred to as the Department, and the U.S. Department of the Interior, National Park Service, hereinafter referred to as the Service, reflects the general policy guidelines within which the two agencies agree to operate.

WHEREAS, the Department, under the Constitution, laws, and regulations of the State of Alaska, is responsible for the management, protection, maintenance, enhancement, rehabilitation, and extension of the fish and wildlife resources of the State on the sustained yield principle, subject to preferences among beneficial uses; and

WHEREAS, the Service, by authority of the Constitution, laws of Congress, executive orders, and regulations of the U.S. Department of the Interior is responsible for the management of Service lands in Alaska and the conservation of resources on these lands, including conservation of healthy populations of fish and wildlife within National Preserves and natural and healthy populations within National Parks and Monuments; and

WHEREAS, the Department and the Service share a mutual concern for fish and wildlife resources and their habitats and desire to develop and maintain a cooperative relationship which will be in the best interests of both parties, the fish and wildlife resources and their habitats, and produce the greatest public benefit; and

WHEREAS, the Alaska National Interest Lands Conservation Act (ANILCA) and subsequent implementing Federal regulations recognize that the resources and uses of Service lands in Alaska are substantially different than those of similar lands in other states and mandate continued subsistence uses in designated National Parks plus sport hunting and fishing, subsistence, and trapping uses in National Preserves under applicable State and Federal laws and regulations; and

WHEREAS, the Department and the Service recognize the increasing need to coordinate resource planning and policy development;

NOW, THEREFORE, the parties hereto do hereby agree as follows:

(copy)

THE DEPARTMENT OF FISH AND GAME AGREES:

1. To recognize the Service's responsibility to conserve fish and wildlife and their habitat and regulate human use on Service lands in Alaska, in accordance with the National Park Service Organic Act, ANILCA, and other applicable laws.
2. To manage fish and resident wildlife populations in their natural species diversity on Service lands, recognizing that nonconsumptive use and appreciation by the visiting public is a primary consideration.
3. To consult with the Regional Director or his representative in a timely manner and comply with applicable Federal laws and regulations before embarking on management activities on Service lands.
4. To act as the primary agency responsible for management of subsistence uses of fish and wildlife on State and Service lands, pursuant to applicable State and Federal laws.
5. To recognize that National Park areas were established, in part, to "assure continuation of the natural process of biological succession" and "to maintain the environmental integrity of the natural features found in them."

THE NATIONAL PARK SERVICE AGREES:

1. To recognize the Department as the agency with the primary responsibility to manage fish and resident wildlife within the State of Alaska.
2. To recognize the right of the Department to enter onto Service lands after timely notification to conduct routine management activities which do not involve construction, disturbance to the land, or alterations of ecosystems.
3. To manage the fish and wildlife habitat on Service lands so as to ensure conservation of fish and wildlife populations and their habitats in their natural diversity.
4. To cooperate with the Department in planning for management activities on Service lands which require permits, environmental assessments, compatibility assessments, or similar regulatory documents by responding to the Department in a timely manner.
5. To consider carefully the impact on the State of Alaska of proposed treaties or international agreements relating to fish and wildlife resources which could diminish the jurisdictional authority of the State, and to consult freely with the State when such treaties or agreements have a significant impact on the State.

(copy)

6. To review Service policies in consultation with the Department to determine if modified or special policies are needed for Alaska.
7. To adopt Park and Preserve management plans whose provisions are in substantial agreement with the Department's fish and wildlife management plans, unless such plans are determined formally to be incompatible with the purposes for which the respective Parks and Preserves were established.
8. To utilize the State's regulatory process to the maximum extent allowed by Federal law in developing new or modifying existing Federal regulations or proposing changes in existing State regulations governing or affecting the taking of fish and wildlife on Service lands in Alaska.
9. To recognize the Department as the primary agency responsible for policy development and management direction relating to subsistence uses of fish and wildlife resources on State and Service lands, pursuant to applicable State and Federal laws.
10. To consult and cooperate with the Department in the design and conduct of Service research or management studies pertaining to fish and wildlife.
11. To consult with the Department prior to entering into any cooperative land management agreements.
12. To allow under special use permit the erection and maintenance of facilities or structures needed to further fish and wildlife management activities of the Department on Service lands, provided their intended use is not in conflict with the purposes for which affected Parks or Preserves were established.

THE DEPARTMENT OF FISH AND GAME AND THE NATIONAL PARK SERVICE MUTUALLY AGREE:

1. To coordinate planning for management of fish and wildlife resources on Service lands so that conflicts arising from differing legal mandates, objectives, and policies either do not arise or are minimized.
2. To consult with each other when developing policy, legislation, and regulations which affect the attainment of wildlife resource management goals and objectives of the other agency.
3. To provide to each other upon request fish and wildlife data, information, and recommendations for consideration in the formulation of policies, plans, and management programs regarding fish and wildlife resources on Service lands.

(copy)

4. To recognize that the taking of fish and wildlife by hunting, trapping, or fishing on certain Service lands in Alaska is authorized in accordance with applicable State and Federal law unless State regulations are found to be incompatible with documented Park or Preserve goals, objectives or management plans.
5. To recognize for maintenance, rehabilitation, and enhancement purposes, that under extraordinary circumstances the manipulation of habitat or animal populations may be an important tool of fish and wildlife management to be used cooperatively on Service lands and waters in Alaska by the Service or the Department when judged by the Service, on a case by case basis, to be consistent with applicable law and Park Service policy.
6. That implementation by the Secretary of the Interior of subsistence program recommendations developed by Park and Park Monument Subsistence Resource Commissions pursuant to ANILCA Section 808(b) will take into account existing State regulations and will use the State's regulatory process as the primary means of developing Park subsistence use regulations.
7. To neither make nor sanction any introduction or transplant of any fish or wildlife species on Service lands without first consulting with the other party and complying with applicable Federal and State laws and regulations.
8. To cooperate in the development of fire management plans which may include establishment of priorities for the control of wildfires and use of prescribed fires.
9. To consult on studies for additional wilderness designations and in development of regulations for management of wilderness areas on Service lands.
10. To resolve, at field office levels, all disagreements pertaining to the cooperative work of the two agencies which arise in the field and to refer all matters of disagreement that cannot be resolved at equivalent field levels to the Regional Director and to the Commissioner for resolution before either agency expresses its position in public.
11. To meet annually to discuss matters relating to the management of fish and wildlife resources on, or affected by, Service lands.
12. To develop such supplemental memoranda of understanding between the Commissioner and the Regional Director as may be required to implement the policies contained herein.
13. That the Master Memorandum of Understanding is subject to the availability of appropriated State and Federal funds.

(copy)

14. That this Master Memorandum of Understanding establishes procedural guidelines by which the parties shall cooperate, but does not create legally enforceable obligations or rights.
15. That this Master Memorandum of Understanding shall become effective when signed by the Commissioner of the Alaska Department of Fish and ~~Game~~ and the Alaska Regional Director of the National Park Service and shall continue in force until terminated by either party by providing notice in writing 120 days in advance of the intended date of termination.
16. That amendments to this Master Memorandum of Understanding may be proposed by either party and shall become effective upon approval by both parties.

STATE OF ALASKA

U.S. DEPARTMENT OF THE INTERIOR

Department of Fish and Game

National Park Service

By /s/ Ronald O. Skoog

By /s/ John E. Cook

Ronald O. Skoog

John E. Cook

Commissioner

Regional Director, Alaska

Date 14 October 1982

Date October 5, 1982

APPENDIX D: ANILCA, SECTION 810, SUBSISTENCE EVALUATION

INTRODUCTION

Section 810(a) of ANILCA states:

In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands under any provisions of law authorizing such actions, the head of the Federal agency having primary jurisdiction over such lands or his designee shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such Federal agency--

(1) gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to section 805;

(2) gives notice of, and holds, a hearing in the vicinity of the area involved; and

(3) determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.

The purposes for which the preserve was established and will be managed are presented in title II of ANILCA (see appendix A).

Subsistence uses are to be permitted in conservation system units in accordance with title VIII of ANILCA. Section 102 defines the term "conservation system unit" to include any national park system unit in Alaska.

EVALUATION CRITERIA FOR SIGNIFICANT RESTRICTION OF SUBSISTENCE ACTIVITIES

The effect of the proposal or an alternative on subsistence uses or needs would be considered significant if one of the following criteria was met:

a large reduction in the abundance of harvestable resources because of adverse impacts on habitat or increased competition from sport harvests

a major redistribution of resources because of an alteration of habitat or migration routes

a substantial interference with access for subsistence purposes as a result of physical or legal barriers

PROPOSED ACTION AND ALTERNATIVES ON FEDERAL LANDS

The National Park Service is proposing to implement a general management plan for Bering Land Bridge National Preserve to guide management of the area for the next five to 10 years. The plan addresses management of natural and cultural resources, visitor use and development, land management, and administration. The proposed action and alternatives are as follows:

minimum management to accommodate existing and projected use (proposed action)

continuation of existing policies (alternative A)

increased use and development, with increases in consumptive and nonconsumptive uses in the preserve (alternative B)

AFFECTED ENVIRONMENT

There is extensive subsistence use in the preserve by the residents of Shishmaref, and selected areas are used by the residents of Kotzebue, Deering, Wales, and Nome. Kotzebue and Deering residents use the Cape Espenberg area, although Deering residents primarily use the Goodhope Bay coast. The people of Wales utilize the westernmost areas of the preserve along Ikpek and Arctic lagoons as well as some inland areas. Subsistence use by residents of Nome may extend into the preserve up the Noxapaga River or into the Serpentine Hot Springs valley. For a more detailed discussion, see the discussions of subsistence activities in the "Bering Land Bridge Environment" section of this document.

EVALUATION OF ALTERNATIVES

This section focuses on any possible restrictions of subsistence activities, the availability of other lands for subsistence purposes, and other alternatives to reduce or eliminate the use of public lands needed for subsistence purposes. Potential restrictions of existing subsistence activities were determined by applying the evaluation criteria outlined above. The Draft General Management Plan/Environmental Assessment considers the full range of alternatives.

Restrictions of Subsistence Activities

The Potential for a Large Reduction in the Abundance of Harvestable Resources. Natural cycles in populations would be allowed to continue in the preserve under all alternatives, and the National Park Service would not attempt to artificially maintain populations.

Under alternatives A and B, the possibility for adverse effects on habitat would be greater than under the proposed action because there would not be a comprehensive approach to researching and monitoring the preserve's resources, including those important to subsistence users. In both alternatives A and B adverse impacts on habitat could go undetected until they reached a serious or obvious stage. The likelihood of this happening is not considered significant in view of the minimum changes in resource conditions and uses expected over the next 10 years.

Alternative B would have the greatest potential for a reduction in harvestable resources due to increased competition from nonrural harvesters (sport hunters) because it would allow greater use of the preserve and its resources. However, use of the preserve would probably not increase significantly because of the remoteness of the area and the cost of getting there. Under alternative A and the proposed action, the preserve would not be promoted as a recreation destination, and only moderate increases in use would be expected over the next five to 10 years.

Conclusion: None of the alternatives, including the proposed action, would result in a large reduction in the population of any harvestable resource because of adverse effects on habitat or increased competition from nonrural harvesters.

The Potential for a Major Redistribution of Resources. The distribution, migration routes, and habitat location of subsistence resources are not expected to change under any of the alternatives. However, the expansion of the western arctic caribou herd into the preserve would be an additional subsistence resource that is not now available on the western Seward Peninsula. None of the alternatives would propose any direct NPS management action related to caribou because the state of Alaska is responsible for management of the herd.

Conclusion: None of the alternatives, including the proposed action, would result in a major redistribution of resources because of an alteration of habitat or migration route.

The Potential for a Substantial Interference with Subsistence Access. Access to the preserve for subsistence purposes is guaranteed under all alternatives by section 811 of ANILCA. Regulations implementing section 811 are already in place, and none of the alternatives would propose changes in those regulations.

Conclusion: None of the alternatives, including the proposed action, would result in a substantial interference with access for subsistence purposes.

Availability of Other Lands for the Proposed Action

No other lands are available for the proposed action because the preserve boundaries conform to specific purposes. There are, however, lands outside the preserve that are available for subsistence users. The proposed plan is consistent with the mandates of ANILCA, including title VIII, and the National Park Service organic act.

Other Alternatives to Reduce or Eliminate Use of Public Lands Needed for Subsistence Purposes

No alternatives that would reduce or eliminate the use of public lands needed for subsistence purposes were identified. Preparation of a general management plan is required by ANILCA, and the proposed plan is consistent with provisions of ANILCA related to subsistence. Subsistence users do utilize other lands outside the preserve, specifically those that are the most easily accessible and that can provide for their needs. They extend their activities to other areas as needed.

CONSULTATION AND COORDINATION

The Alaska Department of Fish and Game, the NANA Coastal Resources Service Area Board, and the Bering Straits Coastal Resources Service Area Board were consulted throughout preparation of the general management plan. Further information is contained in the "Consultation and Coordination" section of this document.

FINDINGS

This evaluation concludes that the proposed action would not result in a significant restriction of subsistence uses within Bering Land Bridge National Preserve.

APPENDIX E: COST ESTIMATES

Table E-1: Cost Estimates

	<u>Proposal</u>		<u>Alternative 1</u>		<u>Alternative 2</u>	
	<u>Annual Operations</u>	<u>Development Costs*</u>	<u>Annual Operations</u>	<u>Development Costs</u>	<u>Annual Operations</u>	<u>Development Costs*</u>
Staffing	\$ 324,000		\$188,000		\$ 366,000	
Operating Cost	648,000		276,000		732,000	
District Ranger Stations		\$432,300				\$648,450
Cabins		45,850				275,100
Airstrip Maintenance					10,000	
Aircraft Charter	<u>33,000</u>	<u> </u>	<u>25,000</u>	<u> </u>	<u>40,000</u>	<u> </u>
Total	\$1,005,000	\$478,150	\$489,000		\$1,148,000	\$923,550

Note: The above estimates do not provide a true representation of operational costs for the preserve. Operational costs that are not possible to include at this stage of planning are costs of cooperative agreements and research. Cooperative agreements could be in the form of operating expenses, capital expenses, personnel, or technical assistance. Research programs will be specified in the resource management plan or in annual preserve budget requests.

*Includes allowance for project supervision and contingencies.

APPENDIX F: CONSISTENCY DETERMINATION
FOR ALASKA COASTAL MANAGEMENT PROGRAM

Section 307(c) of the Coastal Zone Management Act of 1972, as amended (16 USC 1451 et seq.), states that "each Federal agency conducting or supporting activities directly affecting the coastal zone shall conduct or support those activities in a manner which is, to the maximum extent practicable, consistent with approved state coastal management programs."

The Alaska Coastal Management Act of 1977, as amended, and the subsequent Alaska coastal management program (ACMP) and Final Environmental Impact Statement of 1979 set forth policy guidelines and standards to be used for reviewing projects. The Bering Straits and NANA coastal resource service areas boards are preparing district programs, but the programs have not been approved by the state or the U.S. Department of Commerce. Therefore, the standards established by the state of Alaska are applicable to Bering Land Bridge National Preserve.

The Alaska coastal management program identifies 12 primary categories that are to be used in consistency evaluations. The basis of the following consistency determination is this document. The highlights of the assessment are organized in the format of the ACMP standards. This determination considers not only the elements of the proposed plan, but also the elements of alternative proposals in the draft plan that relate to coastal land and water uses.

The categories of the Alaska coastal management program that are applicable to this plan are denoted by an asterisk in the following list:

coastal development	*
geophysical hazard areas	*
recreation	*
energy facilities	
transportation and utilities	
fish and seafood processing	
timber harvest and processing	
mining and mineral processing	
subsistence	*
habitats	*
air, land, and water quality	*
historic, prehistoric, and	
archeological resources	*

The following table evaluates the consistency of the alternatives with the requirements of each of the applicable categories.

DETERMINATION

The draft general management plan for Bering Land Bridge National Preserve has been evaluated for consistency with the standards of the Alaska coastal management program. It has been determined by the National Park Service that the proposed plan conforms with all requirements of the program.

Table F-1: Consistency Determination for Alaska Coastal Management Program

ACMP Section	Policy	Evaluation of Preferred and Other Alternatives	Consistency Determination
6 AAC 80.040 Coastal Development	(a) In planning for and approving development in coastal areas, districts and state agencies shall give, in the following order, priority to: 1) water-dependent uses and activities; 2) water-related uses and activities; 3) uses and activities which are neither water-dependent nor water-related for which there is no feasible and prudent inland alternative to meet the public need for the use or activity.	(a) All of the alternatives emphasize nondevelopmental uses of the preserve (e.g., subsistence, dispersed recreation, research). In all alternatives, new facilities for reindeer grazing (primarily corrals) would be constructed within the preserve if demonstrated to be consistent with sound range management and other management mandates for the preserve. In alternative B, three new public use cabins would be constructed at yet to be determined locations. A new cabin would also be constructed at Serpentine Hot Springs. Mining and other development activities could take place on private lands within the preserve, but that would be the result of federal action. Separate consistency determinations would be required for any such developments.	Consistent
	(b) The placement of structures and the discharge of dredged or fill material into coastal water must, at a minimum, comply with CFR, Title 33, Parts 320-323, July 19, 1977.	(b) None of the alternatives proposes discharging any dredged or fill material into coastal waters.	Consistent
6 AAC 80.050 Geophysical Hazard Areas	(a) Districts and state agencies shall identify known geophysical hazard areas and areas of high development potential in which there is a substantial possibility that geophysical hazards may occur. (b) Development in areas identified under (a) of this section may not be approved by the appropriate state or local authority until siting, design, and construction measures for minimizing property damage and protecting against loss of life have been provided.	None of the alternatives proposes developments in any known geophysical hazard area.	Consistent
6 AAC 80.060 Recreation	(a) Districts shall designate areas for recreational use. Criteria for designation of areas of recreational use are: 1) the area receives significant use by persons engaging in recreational pursuits or is a major tourist destination; or 2) the area has potential for high quality recreational use because of physical, biological, or cultural features.	(a) All of the alternatives recognize and propose to protect the preserve's potential for high quality recreational opportunities related to its physical, biological, and cultural features.	Consistent
	(b) District and state agencies shall give high priority to maintaining and, where appropriate, increasing public access to coastal water.	(b) Public access to coastal water adjacent to the preserve is guaranteed wherever the adjoining lands are in public ownership. Access across federal lands for traditional activities is guaranteed by ANILCA. Recreational use of off-road vehicles would not be allowed under any of the alternatives.	Consistent

ACMP Section	Policy	Evaluation of Preferred and Other Alternatives	Consistency Determination
6 AAC 80.120 Subsistence	(a) Districts and state agencies shall recognize and assure opportunities for subsistence usage of coastal areas and resources. (b) Districts shall identify areas in which subsistence is the dominant use of coastal resources. (c) Districts may, after consultation with appropriate state agencies, native corporations, and any other persons or groups, designate areas identified under (b) of this section as subsistence zones in which subsistence uses and activities have priority over all non-subsistence uses and activities. (d) Before a potentially conflicting use of activities may be authorized within areas designated under (c) of this section, a study of the possible adverse impacts of the proposed potentially conflicting use or activity upon subsistence usage must be conducted and appropriate safeguards to assure subsistence usage must be provided. (e) Districts sharing migratory fish and game resources must submit compatible plans for habitat management.	See appendix D of the <u>Draft General Management Plan</u> for the ANILCA, section 810, evaluation. The evaluation finds that none of the alternatives, including the proposed action, would result in a significant restriction of subsistence uses within the preserve.	Consistent
60 AAC 80.130 Habitats	(a) Habitats in the coastal area which are subject to the Alaska coastal management program include: 1) offshore areas; 2) estuaries; 3) wetlands and tidelands; 4) rocky islands and seacliffs; 5) barrier islands and lagoons; 6) exposed high energy coasts; 7) rivers, streams, and lakes; and 8) important upland habitat. (b) The habitats contained in (a) of this section must be managed so as to maintain or enhance the biological, physical, and chemical characteristics of the habitat which contribute to its capacity to support living resources.	All of the alternatives would help maintain the integrity and biological health of coastal habitats by promoting research and monitoring programs.	Consistent
6 AAC 80.140 Air, Land, and Water Quality	The statutes pertaining to and the regulations and procedures of the Alaska Department of Environmental Conservation with respect to the protection of air, land, and water quality are incorporated into the ACMP.	All requirements would be met under all of the alternatives. Development of any facilities would require compliance with applicable federal and state laws and regulations regarding air, land, and water quality. The only construction activities would be three public use cabins and a new cabin at Serpentine Hot Springs under alternative B.	Consistent
6 AAC 80.150 Historic, Prehistoric, and Archeological Resources	Districts and appropriate state agencies shall identify areas of the coast which are important to the study, understanding, or illustration of national, state, or local history or prehistory.	In all alternatives, the National Park Service would survey and evaluate archeological and historical sites within the preserve. Protection as mandated by applicable laws and regulations would be provided.	Consistent

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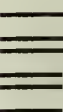
LAND STATUS

BERING LAND BRIDGE NATIONAL PRESERVE

United States Department of the Interior/National Park Service

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DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
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